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095903-01301

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[illegible]

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<213> Homo sapiens
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[illegible]



aaaaaaaaa aaaaaaaaa

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| gtcccagcta ctccgggagc tgaggcagga gaattggcgtg aaccaggagg gcggagcttg | 180 |
| cagtgagccg agattgccc actgcagtc gcagtcctgg ctggcgagaca gagcgagact   | 240 |
| ccgtctctaa aaaaaaaaaa aaaaaaaaaa                                   | 270 |

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|                                                                    |     |
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| caggagaatg gcgtgaaccc gggaagcggg gcttgacagt agccgagatt gcgccactgc  | 180 |
| agtcgcgagt ccggcctggg cgacagagcg agactccgtc tcaaaaaaaa aaaaaaaaaa  | 240 |
| agatcagc                                                           | 248 |

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|                                                                   |     |
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| ctaacaagtg gaaccccat ctctactaaa aatacaaaaa attagccggg cgcggtgggtg | 120 |
| ggcgctctgt gtcccagcta ctccgggagc tgaggcagga gaattggcgtg aaccgggaa | 180 |
| gcggagcttg cagtgagccg agattgcgc actgtggtcc gcagtcggc ctggcgagaca  | 240 |
| gagcaagact ccgtctcaaa aaaaaaaaaa aaaaaaaaaa tcta                  | 284 |

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 <213> Homo sapiens

|                                      |    |
|--------------------------------------|----|
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 <213> Homo sapiens

|                                                                   |     |
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| tttattgtgc ttactttat tacgctttgc agataatgca ttgtttacaa atgggaaggt  | 180 |
| tgtggttaac ttgcatcaag caagtctatt ggcaccattt ttccaatagc atatgctc   | 240 |







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|             |             |             |             |             |             |      |
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| tggtctgctt  | gttctgcata  | aatgtctggga | ttacaggcca  | ctctgctgt   | aatcaaatg   | 2640 |
| ttaaatgta   | ctttctcgaa  | gttttctcgt  | cacagcgaca  | tgaatctgt   | aatcactgc   | 2700 |
| aaagttttct  | tattttctct  | aacatactct  | gttgaccat   | cgaaataggt  | aggcctctca  | 2760 |
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| acatgtacaa  | cattctatgt  | ggagaaatag  | gatgtcttgt  | taacctcttt  | tgttaaaat   | 2880 |
| gcacaaactt  | aattgatttt  | acagcagaat  | gtgtctagaa  | tggtatttta  | aagcagttta  | 2940 |
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| aaatgactac  | agaattgfat  | tttaaaacag  | tttactgtcta | atacagagaa  | agtttttaca  | 3060 |
| gtcttaaatg  | cattttattt  | aaatatatct  | aaaattcttc  | tcaaaaattat | cttattcata  | 3120 |
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| attagccgga  | cgtggtggcg  | ggtgctgtta  | ctgcacata   | ctcaggtatg  | tgaggcagga  | 4200 |
| gaatcgctgc  | aaacccgggag | gcggagcttc  | gactgagtg   | agatggcgcc  | actgcacctc  | 4260 |
| agctggggcg  | acagagcaag  | actctgtctc  | aaaaaaaaaa  | aaaaaaaaaa  | aagtgccctt  | 4320 |
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| actgtaatac  | ccagcacttt  | ggagtgagat  | ggcagcgga   | tcacaagatg  | aggagataga  | 4440 |
| gaccatcttg  | gtcaacatgg  | tgaacacccg  | ctcttactaa  | attatcacaaa | aaaatcagcc  | 4500 |
| gagctctagt  | gcagcgcgct  | gtagtcccaag | tactcggga   | ggtcagagga  | ggagagttag  | 4560 |
| gtgaacctgg  | gaggtggagc  | ttgcagtag   | ccgagatcac  | gcacatgcac  | ttcaacctag  | 4620 |
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| gcgggcgccct gtagtccag ctacttggga ggctgaggca ggagaatggc gtgaacctgg | 180 |
| gagggcgagc ttgcagtga cccagatccc gccactgacg tccagcctgg gcgacagagc  | 240 |
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| tttatttaaa | ttagtttagc | gtggaagggt  | ttctctttct | ttctagattt | aattgcttaa  | 420  |
| gcaattgtta | tttttaataa | tgaagttccat | ttaaatatgc | aaaattccat | gtgagaaatg  | 480  |
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| tgaatgtaat | tgatggagta | ttaacatgta  | gaactaaacg | ctttcttgag | tcctttggaac | 600  |
| caaatgtata | aaagtgcgcc | ttctgggctg  | ggcggtgggt | ctcacgcctg | taatcccagc  | 660  |
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| catggtgaaa | cctgtctctt | actaaaaata  | caaaaaatta | gccggacgtg | gtggcgggtg  | 780  |
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| tgctctcaaa | aaaaaaaata | aaaaaaagt   | ccccttctga | aaaatattct | tttactagt   | 960  |
| gaaataagag | agaatggcca | ggcgagtg    | ctcacacctg | taatcccagc | actttggggg  | 1020 |
| gccgagggag | gcggatcaca | aggtcaggag  | atcgagacca | catggtgaaa | atctgtgtaa  | 1080 |
| cccgcgtctc | actaaatata | caaaaaaat   | cagccgagct | tagtggcggg | cgctgttagt  | 1140 |
| cccagctact | tgggaggctg | aggcaggaga  | atggcgtgaa | ccccggagcc | ggagcttgca  | 1200 |
| gtgagccggc | atttgcgcga | ctgcacacca  | gcctggcgga | cagagcaaga | ctccgtctga  | 1260 |
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| caggctgggt | tcgaactcct | gaactaaagc  | aatttccttc | ccctccactc | agcccctttt  | 1560 |
| ccttctgggc | agtttccaaa | ttatgtattc  | cctgtccaag | atagcagacc | aggctcatgc  | 1620 |
| ctgtaatccc | agcattttgg | gaggccaaag  | tgggcgggtc | acctgaggtc | aggagttcaa  | 1680 |
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<211> 640

<212> DNA

<213> Homo sapiens

<400> 12778

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| tattatggag  | gaagaaggaa  | tgaagaagtaa | ctcttggatt  | tccttttgg  | ttgttttaat | 120 |
| atattttatg  | tgtattttaag | gtatataaca  | tgtatgtata  | agatataaat | atatatagta | 180 |
| aaatggtttac | tatttctggaa | aaaattaaca  | tattctttat  | ctcatgtagt | taccattttt | 240 |
| tacgtttttta | ctcctcatgg  | caagaacagc  | tataattttac | tagtttagta | aaaactctga | 300 |
| atacaacaca  | ttgcttattaa | ctatagtctct | catagtgtat  | gtagagtaca | ttggattctt | 360 |
| tgacttggtc  | tgcctgtata  | tttgctacttt | tgatctcctt  | gatctacatc | tcctcccatc | 420 |
| tctatctcta  | taaataagat  | cttgcaacat  | ttttctgtgt  | agttactggt | tttttactga | 480 |
| gtgactgggt  | agatttttat  | gccattaact  | gtatagaaaa  | cagtttaagg | ttcacttgtt | 540 |
| cacattttat  | acataattat  | tgaagatgat  | tgaaaaagaa  | aatttaagg  | tatactgtaa | 600 |
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<211> 11821

<212> DNA

<213> Homo sapiens

<400> 12779

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| gatcacgagg  | tcaggagatc | gagaccatcc  | tggttaaac  | gggtgaaacc | cgctgtgact | 120 |
| aaaaaataca  | aaaaattagc | caggcggtgt  | ggcgggcgct | tgtagtccca | gatacttggg | 180 |
| aggctaagg   | agggaagatg | catgaaccca  | ggaggcggag | cttgagtgta | cccgagatcg | 240 |
| gcgcactgca  | ctccagcctg | ggcgacagag  | cgagactcca | tctcaaaaaa | aaataaataa | 300 |
| taataatgac  | aaataataac | agcttttaca  | aattaggaag | tctaacttta | ctgacttcat | 360 |
| acccttgttg  | agattatttc | aaatccaggt  | gcctctttaa | tagttatgta | aaggaaatga | 420 |
| gctgacccca  | tataatacca | tagaagtgtat | gaaaggacaa | ataacagtat | gaaatacatc | 480 |
| atgctcttca  | gaagaaagc  | cctatgtata  | ctaaaatgta | ttatgagatg | cctttcacag | 540 |
| gttaaaagaac | acaaaatcac | tttagtatct  | tctggttaga | aagactccaa | gattagcaag | 600 |

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| aatacttt    | aattctgtac  | ctttctggaa  | tcagaataat  | tccttagt    | tctcatctac  | 720  |
| agatatcoac  | ctctatatgcc | aattctatgcc | cgggcaattg  | tgcttggta   | catgatccca  | 780  |
| gcctgtacta  | caactgtact  | caagtgtagt  | gctgaattgg  | tctaatatag  | gtaagcagga  | 840  |
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| caggaaaata  | gtcattcttt  | ttgttttgt   | tgtcttgt    | tttttgagc   | gggtgtctgc  | 1080 |
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| ggcttaacgc  | atctccctgc  | cgcagctcc   | ggagttagctg | ggactacagg  | cacccgccac  | 1200 |
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| atgatagata  | ttagaataacc | ctttcttaag  | aaagttat    | attagagag   | ttgtggcagg  | 1860 |
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| gccttcgaaa  | tgaagaaggt  | cttctcaaaa  | gaaaacatct  | gcacagctg   | tgagatagga  | 2760 |
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| gcaccaatgc  | tgatgtgagg  | ggtttgtgtat | gcgagtgaag  | aaatgtgtga  | ttctgtgggc  | 10800 |
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| cattttttata | aaatgaaaac  | cataataaat  | gttttgaata  | ttaaaaaaaa  | taataacctc  | 11520 |
| cagaggaaaa  | ttaatggaga  | cagctatttg  | ccttgtagct  | tttccacaat  | tggtgtgctc  | 11580 |

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| cgactgtgtg  | atgaatcctt  | tcctgcgtga | tcaggttgcg | gatagacttg | taagggtgtt  | 11760 |
| tgctgcatac  | agtgtgaagca | ttgtgaccgc | caataaaact | caatgggttc | tactgacctg  | 11820 |
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<210> 12780  
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 <212> DNA  
 <213> Homo sapiens

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| cgcagcagaa  | cagccaccgc  | acttcctcct  | cagcttcctc  | tggtgcgggc  | ctgcctcttc  | 120  |
| ttctctggag  | cctttttacaa | ctgaacgcat  | ctgggcttctg | tggtttcctg  | ttttcagcga  | 180  |
| aaattactct  | gagctccagc  | ttccatcttc  | atccatggcc  | acaggccctg  | cctacaacgc  | 240  |
| actaggagag  | tcctctccctg | ctgtctgtgg  | ggaggggcag  | gctgctggag  | ccgccccctg  | 300  |
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| gggagagctg  | gggtgcgagaa | catggcgccct | ccaggggggc  | ggaggagcac  | taggggctgg  | 420  |
| ggcaggaggc  | tcctggagcg  | ctggattcgt  | ggcacagtct  | gaggccctga  | gagggaatac  | 480  |
| catgctttta  | agaactaatt  | catgttttag  | agatacaatca | ggaattaggg  | gccattctac  | 540  |
| ctatctcctg  | acattcacag  | tttaatatag  | acttctcgcc  | tttattccct  | cccaggggaga | 600  |
| ggctgaagag  | atggaattga  | aagcaccatt  | tggagggttt  | tgctgacaca  | gcggggactg  | 660  |
| ctcagcactc  | ccataaaaca  | caccatggag  | gccactgggt  | actgctgggt  | ggcaggctgg  | 720  |
| ccctgctctg  | ggagatccgt  | ggcgatgggc  | gctgggggtg  | aggtgcagga  | gccccaggac  | 780  |
| ctgcttttca  | aaagacttct  | gcctgaccag  | agctcccact  | acatgcagt   | gccccaggga  | 840  |
| gaggggctct  | tacatggcct  | ttttcagggg  | gtgctcctcg  | cggggtggac  | ttgggagtgt  | 900  |
| gcagtgggac  | agggggctgc  | aggggtcctg  | ccaccaccga  | gcaccaactt  | ggccccctgg  | 960  |
| gtcctgcctc  | atgaatgagg  | cttctcccag  | ggctggcctg  | actgtgctgg  | gggctgggtt  | 1020 |
| aacgttttct  | cagggaacca  | caatgcacga  | agagggaact  | gggggttgcta | accaggatgc  | 1080 |
| ttgggaacaaa | ggcctcttga  | agcccaagca  | cagccagcgt  | gagcatgagg  | cccagcccat  | 1140 |
| agacgcacaa  | ggccacctgg  | cccatctcct  | gggcattccc  | tgctttgcat  | tgctgttctt  | 1200 |
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| tgctttccaa  | cacactttca  | catgtgttgt  | aactgttttg  | atccaccccc  | ttcctgaaa   | 1440 |
| atctcgggag  | gttttatctg  | tgccatttaa  | cacagagggc  | aatagagggt  | ctgaaaggct  | 1500 |
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 <213> Homo sapiens

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| cctctatcct  | gctcctgggt | tacaagcaaa | ggcaggcagc | ctccaaaccgc | cgtgagtatt | 120 |
| ctctccctgc  | tgggggtggg | ggacggtgcg | agtgactctg | tccagccccc  | agttcagccc | 180 |
| ctgggattcg  | caaaggcagc | atgcaggcac | aattcctttt | catttgagag  | tggggagcag | 240 |
| ctgcactctt  | cgccaggagc | tgggggaaat | ggccgagaga | aaggaggcat  | gccattctcg | 300 |
| cgcccaactg  | gccaccagc  | ccctttggct | ccaggcgagt | gctggctctg  | caactaatac | 360 |
| atgtctctcg  | aatgaatgat | catatgcagt | agctcaagtt | gctttataaa  | agcaagtctg | 420 |
| tgccactctg  | agatcctctg | gggacctgtt | tgaaggtatg | gcgtgtctgt  | tttgttaata | 480 |
| gtagcaattg  | ttgggacaaa | aaatgatctt | tggaaatca  | gaagtggga   | gggtcttaca | 540 |
| gacaacttag  | ctcaacacct | cttttttcca | gatgagaagg | ctaagatcag  | tggggttaca | 600 |
| taactgactg  | aatgttaact | aacttagtaa | gtggcagagc | taggactcaa  | ctcagagctg | 660 |
| ttcaacagct  | gctctttccg | ggaaataga  | tcaccatata | aataaaaatg  | ctctcactta | 720 |
| ctctcattg   | caagtccaag | aatttggtcc | taccattgtc | ccatttttac  | tgatgggcaa | 780 |
| acggaggcac  | agaggggtta | agtaacttgc | ctaaggaacc | acacagcaaa  | taagtgtgtg | 840 |

|             |             |            |             |             |             |      |
|-------------|-------------|------------|-------------|-------------|-------------|------|
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| tgccctctgc  | ctagttctctg | accctgacct | tgagttcttg  | ttagttctgag | tcctccaaga  | 960  |
| aggggctagg  | gagtttttta  | cccttgccct | ctctccctgc  | ctctccctgcg | ctctccctgcg | 1020 |
| tacagaggtg  | actgagaaag  | acttgctctg | gtgccagggtg | gcttttggct  | cgcaacttat  | 1080 |
| ttcctgtgag  | cgccctctaa  | caacttgtea | tccttccttc  | ccctcatctc  | cgggggcccc  | 1140 |
| cacgtgaagc  | cccatatgtg  | gtcactcggt | ggctgtggcc  | acctaccctt  | tgctttcaga  | 1200 |
| actccctcat  | tcctctctcta | gaacacacca | caacctacct  | gcaggaatac  | ccatgtgctg  | 1260 |
| gggtgggtgg  | gggcaggttaa | agggtcttga | acagaagagc  | aacgtggggc  | agcaggggcag | 1320 |
| gggggacgag  | tgctgtctgtg | ccctccctgg | tggaaaggctg | gccagacagc  | cctgtctcag  | 1380 |
| aatgaggcac  | tctcaggaata | aaaagaaaag | gaaggaggctg | ggagccttga  | ggagcgcagt  | 1440 |
| ttgtctggaga | ggccaacagg  | tgtgatttct | catctcgtct  | tggactgagc  | ctcagtttcc  | 1500 |
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| aattggtgtg  | cagttttgggg | ggtgggggtg | cccaaggctg  | aggcaagcgg  | gcgaactgtg  | 1860 |
| gatgagaagc  | agaaagtgtg  | tgaagtggct | gggaagtgtg  | cggggactgt  | caccttgtaa  | 1920 |
| ggtttccccg  | agagatgtcc  | ctcagaatgc | cacctctata  | ggcaatgtag  | gggataggac  | 1980 |
| agagaggacc  | aggagccctc  | taattaggaa | ctgaccttaa  | acactcccc   | cagctaaagt  | 2040 |
| atggctaaag  | accagaacct  | ggcaaatgtt | caacaagag   | acacaggtta  | gcaaatctaa  | 2100 |
| gagttgacct  | ttgctcgata  | cttaaatctc | gaaggtctga  | cactgtgtaa  | gtcaagccat  | 2160 |
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| gtcaccctgg  | ctagagtaca  | gtgggtgat   | catagctcac | tgcgcctcct  | gaactctcag  | 180  |
| actcacgtga  | gctctctacc  | tcagcctcct  | gagtagctga | gactacaggc  | gcttgcgcc   | 240  |
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| tgaataaat  | gatactgtca  | atttgagata | gcagaagttt  | cacacatcaa  | agtaaaaagt  | 16440 |
| ttgcatatca | ttataactaaa | tgcaaatgag | tcgcttaacc  | cttgacaagg  | tcaagaagaag | 16500 |
| ctttaaatct | gtttatagta  | tacacttttt | actttttacac | actttctctgt | tcatagcaaat | 16560 |
| attaaatcag | gaaaaaaaaa  | tcgaggggag | tatttaacag  | ctgagcaaaa  | acattgagtc  | 16620 |
| gcctctcaaa | gacacgaggg  | ccttggcagg | gaatatttaa  | agcaacttca  | agttttaaagt | 16680 |
| gcagctgtgt | attctaccaa  | acaacagtc  | aagattacca  | tttccatga   | gccaaactggg | 16740 |
| aaacatggta | tatcatgaag  | taactctgtc | aaggcatctg  | gagagtcocg  | gagagaagac  | 16800 |
| tcacctctgt | cgcttgggtt  | aaacaagaga | cagggtttgt  | agaatattga  | tgggtaagtc  | 16860 |
| taaatctgtt | tccttacaat  | caagttctgt | accctattcg  | gccttatata  | ctctgtctta  | 16920 |
| caaaagccaa | agggatctgt  | cgcttgatca | actgaaccag  | tatgccaaaa  | ccaggcatcc  | 16980 |
| aaattgttaa | ccaattatga  | taaaggacaa | aataagctgt  | ttgccacctc  | aaaaactttat | 17040 |
| gaacttcacc | accactagtg  | tctgtccatg | gagtttagag  | ggacatcaet  | tagaagtctt  | 17100 |
| tatagaagg  | acacaagttt  | gtttcctggc | tttacccttg  | gaaaaatgcta | gcaaacattat | 17160 |
| agaaattttg | ccttgttgcc  | ttatctctct | ccaaatgtac  | tggtaaataa  | aaataaaagg  | 17220 |
| ttaccccatg | caatcacacc  | atgccatgtt | ttccttctgt  | gagggcgacc  | ccacaggggac | 17280 |
| ggtttatgag | cacacaatta  | tagcttgttt | ctactttaac  | aaggtatgct  | gcctctgttaa | 17340 |
| attcatgtat | tcaaaggaaa  | aagacacctt | gcctatatta  | aaatgtggaa  | ctataaaatt  | 17400 |
| ttttaaaatc | caa         |            |             |             |             | 17413 |

<210> 12783

<211> 504

<212> DNA

<213> Homo sapiens

<400> 12783

|            |             |            |            |            |            |     |
|------------|-------------|------------|------------|------------|------------|-----|
| aggaggtagc | tctggcccat  | gtcccggggt | gctcaggtca | ccaaaaaagc | gagaggctta | 60  |
| gactgctgga | gctcaggtga  | cgctgtgaag | cccgggcagg | ggctgggtgt | catgaaggat | 120 |
| gagtcctggc | caccctcagg  | gcctgtctga | agttggccag | gctctagatc | ccactgggtc | 180 |
| aagctctggg | caagggtttt  | ggaaagtctt | tgtgggacc  | ctgcctccc  | tgtgactctg | 240 |
| cagagcccat | acagggtttg  | gtcttgggca | gaaaatccat | gatcctgaga | ctgcaggagg | 300 |
| cttttcacaa | agttctttgt  | cactcttagg | agaagactga | gtcaggagaa | aggtgaacc  | 360 |
| tgcagactgt | ctctagaagac | aacgcgggag | cacagaggag | accaggacc  | aattccccag | 420 |
| ctgtgtgacc | ttggacacgt  | tcagactcct | ctctgcattt | cagggttttg | tttttttttt | 480 |
| ttttgatatt | tggtttgttt  | gttt       |            |            |            | 504 |

<210> 12784

<211> 101

<212> DNA

<213> Homo sapiens

<400> 12784

|            |            |            |            |             |            |     |
|------------|------------|------------|------------|-------------|------------|-----|
| cagagcttgc | agtgagccga | gatcgcgcca | ctgcactcca | gcctggggcga | tagagcgaga | 60  |
| ctctgtctca | aaaaaaaaa  | aaaaaaaaa  | aaaaaaagag | t           |            | 101 |

<210> 12785

<211> 2540

<212> DNA

<213> Homo sapiens

<400> 12785

|            |            |            |            |            |            |     |
|------------|------------|------------|------------|------------|------------|-----|
| gggatgttat | caagtggctg | gtcaaagcag | taactgaaga | tggattgact | cagcccccaa | 60  |
| atggaaatca | aacgtcttca | ggaacaggaa | tcttgaaaag | cagcagtagc | cacccttctt | 120 |
| ccagagccaa | cctgacaaag | aacaccaatc | agctgtaagg | ggcaggcagt | tctctttcct | 180 |
| ggggtctttg | gggttttagt | ttttagagag | aacaacacca | atccctaaga | gcagcttccc | 240 |
| ccaaattaac | aagatcttag | aacataggct | gatgcttatt | caagacttag | tttaactaga | 300 |
| ggctaaattt | ctgatttcaa | aggcagaaca | aaacagggtg | ctttcacccc | taaaatgaat | 360 |
| aggactctac | aaagtgaata | cgaagtca   | acgcagatgc | aaaacaaatg | ctagaggaca | 420 |
| ctgcctctca | cttctgcgat | ttcaggagac | agtaaaaggt | tacagctcct | catcacttca | 480 |

|             |              |             |             |              |             |      |
|-------------|--------------|-------------|-------------|--------------|-------------|------|
| gatactctgtt | gccatagaga   | aggagttggt  | tgtagtgtga  | gttttgttaa   | cctcgaggtcc | 540  |
| tcaaggagct  | gggtttctct   | cctcaggctc  | cgggagaaaa  | atgacatcta   | gcctgcaggct | 600  |
| tccaacacac  | cagggcagggt  | atctacaccg  | cagactgcac  | tggaaagaaa   | tctatggcat  | 660  |
| tctctttatg  | gagttgagag   | tgtgctttggc | gttttttgag  | agatgcgggg   | agatttagggg | 720  |
| ctgtgggctc  | ctctgcacaa   | ataacccagc  | attccatgtc  | aatcatattt   | tgaaaagcca  | 780  |
| gtcacactcg  | gcattttcaag  | tgaactattt  | tgacttcgat  | tcacaattgt   | ataatcttgtt | 840  |
| tgaccacagg  | tgatttttat   | ggaagaccta  | caagttttaa  | tgttttctta   | tatttgtaaat | 900  |
| aattataact  | aattttagaa   | acaattttat  | attctaaaggt | gaattgtttg   | gaacaattgaa | 960  |
| gcatttgacg  | agatttgagg   | aggccctaaa  | gtagactctt  | cccacacggg   | ccacatacag  | 1020 |
| accctaaggc  | gaggttgagc   | ctgtttcttc  | aatggaagct  | agtatcatct   | aacaaatcat  | 1080 |
| ataataaagt  | tttataaata   | ctgttttagt  | gaataaccaa  | taggggtccc   | taaaagtcaa  | 1140 |
| ttttgttatg  | attcttaacaa  | caatagtagt  | tgtctaccac  | ttatcactag   | agagtccctg  | 1200 |
| tgagatattt  | tatatagcac   | tcacaacttt  | acaaaataga  | tattattgtt   | cacccttttt  | 1260 |
| atagattgga  | acacttggac   | tacgggcagt  | ttagtaacct  | gtcgaagggt   | aaacagctta  | 1320 |
| tcattgtaga  | gacagaactt   | gagggccagag | tctgttgctt  | ggcccacatt   | tgtgtgtact  | 1380 |
| acagtcgagat | ttctctaaag   | taaaaccttt  | cttccatcac  | agataaacgt   | tgttgcggcg  | 1440 |
| ctgtgctggct | cacgcctgtc   | atcccgacac  | tttggggagg  | cacgaaggcggt | ggatcatgag  | 1500 |
| ctcaggagat  | ggagaccatc   | ctgtgtctca  | cggtaaaacc  | ccgctctctac  | taaaaaataa  | 1560 |
| caaaaaaata  | gcggcgcatg   | ctgtgcggca  | cccttgatgc  | cagctactca   | ggagactcag  | 1620 |
| gcaggagaaa  | ggagttgaac   | tgtgggcagg  | agctggcagt  | gagccaagat   | cgcgccacag  | 1680 |
| caactccagc  | tgtggcgacag  | acgtagactc  | catcttccaa  | aaaaaaaata   | aaaaaaaata  | 1740 |
| aaacccagct  | tgaaaaagcg   | tgatgtcagg  | ccaggctcac  | ctttctgaga   | ggttgccccc  | 1800 |
| actcctaatt  | ccacactcagg  | ctgtgctctc  | ccccagctta  | gacttaattg   | gagagaaggt  | 1860 |
| caggttccac  | caggggagggt  | cttgagaccg  | aacttagtta  | gaagctattt   | taaaagaaac  | 1920 |
| agtaaacagg  | gaaaactgtg   | tggaacaact  | ataatttttc  | cttgatcaaa   | gaaattttaa  | 1980 |
| tcatttttaag | tcactcttga   | tctctttctt  | catctgcaaa  | acagggaagt   | tatagattga  | 2040 |
| atgatactcta | tgtcttcccta  | cctctttaag  | gttgtgtggt  | tctatttttg   | aattttaaag  | 2100 |
| cagctctgctt | tttagctctc   | accccaggat  | ctgagaggtt  | caaatgatgt   | gtcttgccca  | 2160 |
| aggaggtaca  | gttaggtgaa   | attgtcaaat  | aaaagcattc  | tgaagtgttt   | agtattcttc  | 2220 |
| cctgacctgtc | tgtgtgcttt   | ataagatctt  | ttagtatgtc  | ctactctcga   | tgtcacctgg  | 2280 |
| tgtgggacga  | ctcccagcca   | agaagtgcct  | ccttccgaca  | ctctcacact   | catctgtgtc  | 2340 |
| ctatgtttctg | gactcaggat   | tgtgtgccag  | cttcagagaa  | tgtctctcat   | agccgtagag  | 2400 |
| gtggcagacg  | cccccaacct   | cagctcccaa  | aaaattcgcg  | agatagattt   | tgggtttgtg  | 2460 |
| ctggaacttc  | ctgagaggag   | ccagagggtga | gtcttgattt  | tgttggggag   | acagatttatt | 2520 |
| taaaaaaaata | acaaaaaaaata |             |             |              |             | 2580 |

```
<210> 12786
<211> 2540
<212> DNA
<213> Homo sapiens
```

| #400> 12786 |             |             |            |            |            |      |
|-------------|-------------|-------------|------------|------------|------------|------|
| gggattgtgac | caagtggctg  | gtcaaaagcag | taactgaaga | tggattgact | cagcccccac | 60   |
| atggaaatca  | aagctcttca  | ggaaacagcaa | tcttgaaagc | cagcagtagc | caccctttct | 120  |
| ccgagcccaa  | cctgacaaac  | aacaccaata  | agctgtaaag | gcgcaggaat | tctctttctt | 180  |
| ggggctcttg  | gggtttagtg  | tttttagagag | aacaacacca | atcccttaag | cgagctctcc | 240  |
| ccaaattaac  | agagatcttag | aacatagcgt  | gatgctttat | caagcttaag | tttaactaga | 300  |
| ggctaaattc  | ctgattttaca | aggcgacaac  | aaacacagtg | ctttcaaccc | taaaaatgat | 360  |
| aggactctac  | aaagtgaata  | cgaagtccaa  | acgcagatgc | aaaaacaagt | ctagaggaca | 420  |
| ctgcctcttc  | ctctctgcat  | ttcaggagag  | agtaaaaggt | cagcagctct | catcatctca | 480  |
| gatatctgtt  | gcatatagaga | aggagttgtg  | tgtattgtga | gttttgttaa | ctctgagctc | 540  |
| tcaaggactc  | gggtttctct  | ctccagcttc  | cggaagaaaa | atgattatca | gcctgcaggt | 600  |
| tccaacacac  | cagggcagggt | atcatcaccc  | cagactgcac | tggaaagaaa | ttcatggcat | 660  |
| tctctttatg  | gagttgagag  | tggtcttgcc  | ttttttttag | agatgcgggg | agattatggg | 720  |
| ctggggctac  | ccttgacaaa  | ataaaccaag  | attccatgtc | aatcatattg | tgaaaagcgg | 780  |
| tgcaactcgt  | gcattttcaa  | gttaacctat  | gtgtctgaat | tcacaattgt | ataatcttga | 840  |
| tgcaacaaac  | tgatttttat  | ggaagacata  | caagtttaaa | tgtgttctca | tgatttgaat | 900  |
| aattataaact | aattttaggaa | acaatttcta  | atctaaaagg | gaattgtttg | gaacatagaa | 960  |
| gcattttgac  | gaattgagga  | aggccctaaa  | gtagattcat | ccacacaggg | ccacatcacg | 1020 |
| accaagaagg  | aagdtggaca  | ctgtctcttc  | atgtgaagct | cgatcatcat | aaacatcatc | 1080 |

|            |             |             |             |             |             |      |
|------------|-------------|-------------|-------------|-------------|-------------|------|
| ataataaatg | tttataaata  | catgttagta  | gaataacaa   | taggggtccc  | taaaagtc    | 1140 |
| tttgtttatt | atcttaacaa  | caatagatt   | tgtctaccac  | tattcatcag  | agaggtccctg | 1200 |
| tgtagatat  | catatagac   | ccaacatgt   | acaaataaga  | tattatttgt  | cacccttttt  | 1260 |
| atagatgaga | acacttgac   | ctcaggcgagt | tagtactaat  | gtcgaaggtt  | aaacagctta  | 1320 |
| tcattgtaga | gacagaaact  | gaggccgcagc | ctgtgttgtt  | ggcccactct  | tttgttactt  | 1380 |
| acgtgcagat | ttctttaag   | taaaaccttt  | cttccatcac  | agataaacgt  | tgtttgccgg  | 1440 |
| cgttggtgtc | cacgctgtga  | ttaaccgcac  | tgttggagcg  | cgaaggccgat | ggtatcatag  | 1500 |
| gtcaggagat | ggagaccatc  | ctggctaaca  | cgggtgaaac  | ccgtctctca  | taaaanaata  | 1560 |
| caaaaataat | gcgcggcgat  | gttggcggga  | ctctgtatgc  | cagctactca  | ggagactgag  | 1620 |
| gcaggagaaa | ggagtgaacc  | gtggggcgga  | agctggcgagt | gagccaagat  | cgcgccacag  | 1680 |
| cactccagcg | tgggtgcagc  | agctagatctc | catctcaaaa  | ataanaaaaa  | aaaaataaaa  | 1740 |
| aaacacgtgc | tagaaaaagg  | tgtgtcagg   | caggctctac  | ctttctaga   | gtgtgccccg  | 1800 |
| actctcaact | ccacatcagg  | ctggctctct  | ccccagctta  | gatctaatgt  | gagagaaggt  | 1860 |
| cagggtccac | caggggagggt | tctgagacgt  | aacttagtta  | gaagctatct  | taaaaggaaac | 1920 |
| agtaacagg  | gaaacctgtg  | ctgcaataac  | atattttctc  | ctgtctcaaa  | gaaatttaa   | 1980 |
| tcattttaag | tactcttgg   | ctgtttcttc  | catctgcгаа  | acagggaatg  | tatagattag  | 2040 |
| atgatcttga | ttagtctctc  | tatcccttaag | gttgtgtgtt  | tctatttttt  | aattttaaaag | 2100 |
| cagctgtgct | ttacagctca  | accccagggt  | ctgagaggtt  | caaatagat   | gtcttcggcaa | 2160 |
| aaagggatca | ggttaggtgaa | attgtctaat  | aaagagctgc  | tgtatgtttg  | agttagttctc | 2220 |
| cttgaccttg | tgtgtgtctt  | ataagaatct  | ttagtatagt  | ctctactctg  | tgtacactgg  | 2280 |
| tgggggagca | ctccacagca  | gagagtgtct  | ccttgcacga  | ccctcacact  | catctgtgtc  | 2340 |
| ctatgttgtc | ctcatcagat  | tgtgtgttgt  | cttcagagga  | tgtctctcat  | agccgtagag  | 2400 |
| gtggacagga | ccccaccctg  | cagctccaat  | aaaatttcgc  | agatagttat  | tggggtttgt  | 2460 |
| ctggacatct | ctagagaggag | ccagaggtga  | gtcttgat    | tgttggggag  | acagctttatt | 2520 |
| taaaaaaaaa | ctgaaaaaaa  |             |             |             |             | 2540 |

```
<210> 12787
<211> 401
<212> DNA
<213> Homo sapiens
```

[illegible]

```
<210> 12788
<211> 401
<212> DNA
<213> Homo sapiens
```

| <400> 12788 |             |             |             |             |             |     |  |  |  |
|-------------|-------------|-------------|-------------|-------------|-------------|-----|--|--|--|
| caccaccctt  | gcaccaccggt | gatcatcatt  | ctgcctaggtc | atcattttcat | ttcttttcctt | 60  |  |  |  |
| tcctatgtagt | tgatttatgat | atatactgat  | tcctataaaa  | tatatattttt | tacttttagtt | 120 |  |  |  |
| ccctttagctc | tattatataaa | gggtatcatgc | tattatgtaat | catctgagaa  | ttttatttttt | 180 |  |  |  |
| cacttactgt  | tttatagtac  | caagaattgtt | ccatattgttt | gcctgtcact  | gtagttttatt | 240 |  |  |  |
| tattatgtta  | tgcattattca | tactcattatc | cttcatttgc  | cttcaccatt  | tcaaaatttc  | 300 |  |  |  |
| actgtctgac  | ccctggggagc | ggagcttgca  | gtgagccgag  | atcgcaccac  | tgcactccag  | 360 |  |  |  |
| ctctgcacac  | gaqccagact  | ctgcctcaaa  | aaaaaataaa  | a           |             | 401 |  |  |  |

```
<210> 12789
<211> 3992
<212> DNA
<213> Homo sapiens
```

&lt;400&gt; 12789

|             |             |             |             |             |             |      |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| tccccgacct  | ttggggagacc | aagggcgggcg | gatacagagg  | tcaggagatcc | gagaccatcc  | 60   |
| tggtcaatgc  | gatgaaaacc  | cgtctctact  | aaaaatacaa  | aaaaattagc  | cggtgtgtgt  | 120  |
| ggtagggccc  | tgtagtccca  | gctactcagg  | aggcttagggc | aggagaatgg  | tgtgaaacct  | 180  |
| ggaggcgagg  | cttgcatgga  | gctgagatgg  | cggcactgca  | ctctagccctg | ggtagacagag | 240  |
| cgagactccg  | tctcaaaaaa  | taataaagaa  | atataattact | taattaatca  | aaataaataat | 300  |
| aaaaataaaa  | atttaactgt  | taagccctgc  | ctctctctct  | tatctttatc  | ctagggcctgc | 360  |
| gcataaggtg  | tcacttaagg  | cttgggtgggt | gaatgaataa  | gatataacca  | atattagagg  | 420  |
| aactagaggt  | gacacaagaa  | tgaaaagagt  | tggacctata  | gaatgacccc  | agatagtaaag | 480  |
| aattaggaa   | tcagttttct  | taagcatgaa  | ttagtgaagt  | atttcattag  | gaagggataa  | 540  |
| agaaatggtt  | tttggctaaa  | aaacaatgatt | ccttccttga  | cccgataatt  | ttaaaaacca  | 600  |
| gaggaagaaa  | actaaactag  | aatgaatatg  | aattcatgaa  | caattgctgg  | tacaggaaat  | 660  |
| aagtataaga  | gagtcattgc  | gtagtgggtg  | cctctggggg  | aattatggta  | tatgtttgtc  | 720  |
| ttcagtgcat  | ctccaccagc  | tccatgcgtg  | cttcccatcc  | ccatccctaa  | actcccagct  | 780  |
| gacaaccaag  | acaactattg  | tcgacgtttg  | gtttcttcta  | ttacaagaaa  | atgtcatgcc  | 840  |
| aaatagtact  | ggaataggac  | ttaattaaaa  | tactctggta  | agattgagac  | atttactgag  | 900  |
| tccctacaat  | gtgccagcca  | ttgtcacatt  | aattatctca  | ttgtttttct  | gttttttttt  | 960  |
| ttttttttct  | tttcttata   | atttagaaac  | agggctctgc  | tatgtgtccc  | agcgtagttt  | 1020 |
| tgaactcctg  | ggctcaagca  | atcctcctgc  | ctcagcctcc  | cgaagtctct  | ggattacagg  | 1080 |
| catgagccac  | cgacccccac  | cttattttat  | tttcttata   | ttgtttctct  | atttatttat  | 1140 |
| ttatttggtt  | tgaggcgagag | ctcactctg   | tcacccaggc  | tggagtacag  | tgggtgggac  | 1200 |
| tcagctcact  | gcaatcttgc  | cctctctggg  | tcaagtgtat  | cctctgctct  | agcctcttga  | 1260 |
| gtggctggga  | ttacaggtgc  | atgccctact  | accagctaa   | tttgtgtatt  | ttttagtagag | 1320 |
| atgggggttc  | accatgttag  | ccaggctggg  | ctcaaacctc  | tgacctcagg  | tgatctgtcc  | 1380 |
| accggcagac  | cccaaggctc  | tgggattaca  | ggcgtaaac   | ttactagacc  | gcaatgttat  | 1440 |
| ctctatttaa  | tgaataagaa  | aagcattcaa  | agaggtggag  | gtctaattcc  | taagttttat  | 1500 |
| tagctaatca  | ggttcagaat  | ccaaatttaa  | accaggctgc  | actctaacc   | aaatcaata   | 1560 |
| ttcaaaagg   | gcagttgtct  | gtactgttca  | gacagaagaa  | agtgacacat  | aataccatgc  | 1620 |
| ttgtctctaac | actttgtcag  | gagttattca  | tttgggtcca  | actcctctac  | tattcatcca  | 1680 |
| tgtaagccca  | gatgctggta  | agaaatggga  | aagctaagga  | ataggtaaca  | aaaaaaaatt  | 1740 |
| aggaattaaa  | acagacaaca  | atgattttata | caaaactcgg  | cctactttta  | aaattctctc  | 1800 |
| agaggggcga  | attggccact  | caccacaatt  | atgctaaaag  | atactttact  | tggcctttac  | 1860 |
| cttgattttt  | tttaattttc  | taaaagataa  | gtataattta  | catacaatta  | aattatgtaa  | 1920 |
| actagcttgc  | atatacatca  | ttcagtgagt  | cttgacaaat  | gcatataacct | tttgacacct  | 1980 |
| tcattttcca  | attgctcat   | agtagtgtat  | agaaacctgc  | caaccttaat  | aaattaaact  | 2040 |
| attctagtat  | gattttttgt  | tgtttttctt  | aggtattctc  | acatacacaa  | tacagtgttc  | 2100 |
| taaaaaataca | ctttaaactgt | atccttccca  | atctgtgtat  | gccttttgc   | tgctttttct  | 2160 |
| tgccatactg  | catagcttag  | aatctccagg  | aaaaatgttg  | agaagcagtg  | agagttagaca | 2220 |
| ttattgtccc  | attcctgac   | ttaggggtgaa | aacattcagt  | ttttgactat  | taagttgtat  | 2280 |
| gttagctata  | aatgtttcat  | aggtgccctt  | tgctagtttg  | agggagcttc  | cttccatttc  | 2340 |
| tagtgtatta  | tttttacgaa  | gaataagat   | tgaaaatttc  | caaatatgtt  | gtctccatct  | 2400 |
| attgagataa  | tcactgtttt  | tcttctttat  | tcgttgtag   | tggtgtata   | cactgattaa  | 2460 |
| ttctatcacg  | ttaaaccaac  | tttgcattcc  | tggataaaaa  | acctactctg  | ttgtgtatgt  | 2520 |
| tatcctctct  | atatattgat  | ggattcaagt  | tgctaatatt  | ttgttaagga  | ttttgtcatc  | 2580 |
| aatgtttaca  | agggatattg  | acctgtagtt  | ttattttctc  | gtaattgttta | atgttttcca  | 2640 |
| tgtttcccta  | tgcatattta  | aaagaaaagt  | aagttggcca  | ggctgggtct  | gaactcctga  | 2700 |
| ctcagatga   | ctgtcccacc  | tcagcctccc  | aagatgctgg  | gattacaggt  | gtgagccacc  | 2760 |
| aggcccagcc  | ttatgaactg  | aattctaaaa  | taagttttaa  | aagcaaaagt  | caaaataata  | 2820 |
| ttatatattaa | tatacatatc  | tttttgttaa  | aaaatgataa  | aaataacat   | gtattctgatc | 2880 |
| atttgtttaa  | aaaagaaaca  | aagttaaggt  | aagccacaga  | ctaataaaat  | tgcttacata  | 2940 |
| cagagagtgt  | gtgggaaatg  | gataaaaaag  | agaaaaggta  | ctgggctcgg  | tggttaattgg | 3000 |
| ggagctgggt  | gtgggtgggtg | taaacacttc  | ccctgagtatg | ctcttttgtg  | tggtgtgtaa  | 3060 |
| cactttttat  | agtcattgtta | accctattat  | gctcgggggt  | caacattttt  | tgtgtgaaaa  | 3120 |
| atcagacctg  | ggcaatgacc  | ttgagcatga  | ggatacaaat  | actctcaaca  | agtttagcgt  | 3180 |
| tccaataatg  | gaacactggg  | cataaaattta | atgttttaca  | tactcaaaaa  | atcaaatctca | 3240 |
| cagggtgccca | aaaatggaa   | acaaacagaa  | acaaagttac  | ctaacgttat  | tttaataaaa  | 3300 |
| taaaaggatag | ctagcatgtg  | ggcatgcacc  | cacagttcca  | actactcagg  | aggctccagt  | 3360 |
| aggagagaga  | cttgagacaca | ggcgtatgag  | gctggcctgg  | gcaacacagc  | aaatccgtgt  | 3420 |
| ggtaattaat  | caataaaaat  | ggaaaggggtg | gagggacagg  | ccagggtaac  | ttttttttta  | 3480 |
| cctttttatt  | ttattttatt  | ttaaaaaatt  | gtagattcac  | aggaaattgc  | aaaacctatt  | 3540 |



|            |            |            |            |             |            |      |
|------------|------------|------------|------------|-------------|------------|------|
| agaagtagtg | tatactcttt | acactgtttt | cccttagata | caagggggaa  | tataactata | 3600 |
| gtacaatatc | acaaatagga | aatttacatt | ggtacaatcc | cagactttat  | tcagttctac | 3660 |
| ccatttccat | gcactcattt | gtgtgaagct | cttttttagt | ctattaccgt  | tgtagatttt | 3720 |
| tatgaccgtc | accgcagtc  | agatgtataa | ctgttctggc | cgggcgcggg  | ggctcacgcc | 3780 |
| tgtaatccca | gcactttggg | aggccgagac | tggcggatca | cgaaggtcagg | agatcaagac | 3840 |
| ctcctcggtc | aaccgcgtga | aaccccgctc | cttctaaaaa | tacaaaaaat  | tagccgggtg | 3900 |
| cgggtggcgg | cgctgtagt  | cccagctact | cgggaggctg | aggcaggaga  | atggcgtgaa | 3960 |
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<210> 12790

<211> 84

<212> DNA

<213> Homo sapiens

<400> 12790

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| aaaaaaaaaa | aatagaaaaa | aaaa        |             |            |            | 84 |

<210> 12791

<211> 766

<212> DNA

<213> Homo sapiens

<400> 12791

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| cgactgtgat  | agggtaataa  | taaaatagta  | ataatcacta | cctgtgttaa  | gggcttactc  | 120 |
| ttatgtctaga | cactgttcca  | aatcctttcc  | atgtttatgt | ttctcctttt  | agtaggattg  | 180 |
| tgtttatttc  | cattaaacat  | caccaagaaa  | aacaaaaaga | aatcctgtat  | taacatttgc  | 240 |
| tgcatttcta  | aatgacattc  | tggccaaaaa  | ctatagttaa | tcttgacgta  | gatgattttt  | 300 |
| gcaaatcaaga | caagttatca  | ctcaaaagacc | actccaattt | attgtccaat  | cctctggtaa  | 360 |
| caaatgtggg  | cagtaggagt  | tctttatcct  | ggcagataga | caagggcaat  | gggtttcaaa  | 420 |
| cttttatctc  | aagaactcat  | tatacccata  | aaaactattg | aagatcctgg  | gctgggctgg  | 480 |
| gtggctcact  | cctgtaatcc  | cagcaacttg  | ggaggctgag | gcaggcggaat | cactttgagt  | 540 |
| caggagttcg  | agaccagcct  | ggccaacatg  | gtggaaacct | gtctctacta  | aaaaataaaa  | 600 |
| attagttggg  | catggtggca  | catgcctgta  | attccagcta | ctcggggaggc | tgaggcgagga | 660 |
| gaatcgcttg  | aacctggggg  | gcagaggttg  | caggagccga | gatcgtgccca | ctgcactcca  | 720 |
| gcctggggca  | cagagcaaga  | ccctgtctca  | aaaaaaaaaa | aaaaaa      |             | 766 |

<210> 12792

<211> 520

<212> DNA

<213> Homo sapiens

<400> 12792

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| tcctctcccc  | accgggagct  | gcgacaaatg  | cgttgcccgag | gaaacgttgc  | gcttcacaggc | 120 |
| cgctgacatc  | cagggaatga  | agtcttgcgt  | cacaaggggga | gcgacggcct  | tgtgcacggc  | 180 |
| cttctgcggg  | cctgagtaat  | ctgtcgggccc | tgagtaccac  | cagggggcttt | tgaatctttg  | 240 |
| ccaaggggaga | atgggggaaga | ttttgcaact  | tatcaataac  | ctattagcta  | atgttgctgg  | 300 |
| ggaggagtct  | cgactttgtg  | tgattattgt  | gctaaagtgt  | caattaatca  | ccaggccctg  | 360 |
| tggccctact  | tccaaaatac  | tatacatccc  | aaattcatcc  | actgttttgt  | gtctctacct  | 420 |
| gccattatcc  | tggtccaggc  | tcccagcatc  | tttcaactgg  | atactgcccgt | aacctgttaa  | 480 |
| atagttctcc  | tgctttgtcac | ccttgcccca  | ctacactcca  |             |             | 520 |

<210> 12793

<211> 6271

<212> DNA

&lt;400&gt; 12793

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| atggacatgg  | aggtaacttt  | aacagatcat  | attggtaaca  | tcttagggacc | ccaattccag  | 120  |
| acgttccagg  | gcaagacacg  | gtccccttgg  | tcatttactt  | tccaggttgtt | ggccctcatt  | 180  |
| atcattctct  | gcgtgggtgtc | gtttttctgt  | attctgtcat  | tcttttttcc  | cagtaggtac  | 240  |
| gttattggct  | tataatctca  | ccaggacttt  | ttttaatcca  | aagagcctct  | attctttttt  | 300  |
| attttttatt  | tttaaaattt  | ttaggctggg  | cacgcggtg   | gtcacacctg  | taatcccggc  | 360  |
| acagtggatc  | acgagggtcag | gagttcggag  | ccagcctgac  | caatattggg  | aaaccccatc  | 420  |
| tctactaaaa  | atacaaaaaa  | tagctggggc  | tagtggtggg  | cgctgtgggt  | ccagctgtct  | 480  |
| cggaagggtc  | aggcaggaga  | atcgcttgaa  | cctggggagg  | ggaggttgca  | gtgagccaa   | 540  |
| accatgccac  | tgactccag   | cctgggcaac  | agagcaagac  | tctgttctta  | aaaaacaaaa  | 600  |
| aagtgtacc   | agttgagctg  | attctttatc  | ttttttcac   | tggagaacta  | agtatacagg  | 660  |
| tgagaaaaga  | cgagatat    | ataccggaga  | gaattgatgg  | tgaaatccat  | ttttttggat  | 720  |
| cagaactctc  | caaaacagct  | tctctcaaat  | agggttcagg  | ggtgctaaga  | tatttatccc  | 780  |
| ctcaaccctt  | gggtgtcact  | ccagtatggc  | atataaatat  | tgtatcactt  | tctattgtgt  | 840  |
| gggagcagtg  | ctccaggtga  | ccttctctcc  | tttcttcta   | ggggaggaag  | ttgccttgta  | 900  |
| ctgtgcgaaa  | tatcttctg   | atatcatcaa  | agatcagaag  | gcctacaagg  | aaggcaagct  | 960  |
| acagaaggtc  | tgctgtctta  | caccgcccat  | tctcactttg  | tgtaggcttt  | tcctctgttc  | 1020 |
| tctagccctt  | gggtcttttc  | tttctttttg  | tctctagctt  | gctgctgctt  | attactctct  | 1080 |
| gaagaattct  | gttctctaaa  | cgagcttatt  | ggccgccttt  | tagacttgcc  | ttattattec  | 1140 |
| taggctcttg  | agctgttttt  | atctgtgagt  | gtctcttagt  | gtgggtgctc  | acactcttaa  | 1200 |
| tttgattctt  | atcctgtgtg  | tcaggatttg  | atatagggag  | ttcattttgt  | actagtctta  | 1260 |
| gactattttg  | cttatattca  | ggcttttagaa | gatgccttct  | tggtatttga  | cgccaaattg  | 1320 |
| accactgaag  | aagtctattaa | agagctggca  | cagattgcag  | gggacccctc  | tgaggatgaa  | 1380 |
| gatgaaaagg  | aaaaagtagc  | tgatgaagat  | gatggtgagt  | gtggcatccc  | ttgtttgagg  | 1440 |
| ggaattcagc  | atttttaagaa | atattcttta  | atattactta  | tcaattctaa  | gataggatgg  | 1500 |
| ctttctaggg  | acctggggag  | tctctatgtt  | aaagaaacct  | atgatgttct  | cctgcattgt  | 1560 |
| atgtggttat  | caaaaaggag  | gagagaatta  | tcttcgttga  | gtggcatctg  | cgctgttaag  | 1620 |
| attgtatata  | gattatcttt  | tgctattgtg  | atggggtctt  | cctgggtcct  | gctagtattt  | 1680 |
| atgtgctttt  | ttttcccttc  | aagactggag  | cagttattag  | ccccaatagc  | caatcattaa  | 1740 |
| gcctaaatct  | tataatcacg  | tagcatttgt  | gttctcctgg  | atcctcagcc  | aaaatagggg  | 1800 |
| ttttacaact  | taacaataaa  | aaatgagacg  | tcagagggga  | agtatagtaa  | ctagtgtgtg  | 1860 |
| tttgatttaag | aaggggatga  | aacacaaaaa  | ccaaaagaag  | tctgtggagg  | aggaggagct  | 1920 |
| agggcatggt  | ctctgtgagc  | ttgagcgaga  | ggaaccttgg  | gagtgggagg  | ttgtggggaa  | 1980 |
| gttagaggtt  | ccaagggtcg  | ttgaggtagt  | gagaggggac  | gatccccatg  | ggagtctggc  | 2040 |
| gttgggggctc | tcatattgac  | tcttccctgc  | agtgagcaat  | gagggagctg  | cactgtcgca  | 2100 |
| tgaagaagct  | acagactact  | tttaagagct  | gctgacacgt  | tcgggcagca  | tgctgcacaa  | 2160 |
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| caatggggag  | gcaggacctg  | aggactcaac  | tagggaaaact | ccttcacaa   | aaaatggccc  | 2280 |
| cacagccaag  | gctacacag   | gcttttcttc  | caactcgga   | cgtgggactg  | aggcaggcca  | 2340 |
| caagtgtgtg  | cctgggaatc  | ccactgtgtg  | ggctggggct  | tctgtctctt  | cagcctctga  | 2400 |
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| atgaaatgtg  | tgcttctctt  | gtttgttaaa  | gctcttttgg  | gggtcccagt  | gaaagcaagc  | 3480 |

|             |             |             |              |             |             |      |
|-------------|-------------|-------------|--------------|-------------|-------------|------|
| ataggtgaac  | gatcaggagc  | acatcagtga  | ggaacgcgat   | ttcagaagcc  | cccatgatgc  | 3540 |
| tcctttttct  | ccctcttaagc | ctgtgctctga | cagttgcttaca | acagcgctggg | tgcccgctgat | 3600 |
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| ccctctttgt  | ggactctaga  | ttctctggaa  | gggttctaaa   | ccctgtggct  | gactctacc   | 5340 |
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| gggttgacaa  | gtcactctgc  | atcatcatct  | gcttcaagcc   | ccgaaacaca  | cgagactctc  | 5460 |
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| cccgactgat  | ttccatctgt  | agcatatggc  | gagcccccat   | gttaggtgtg  | gcgtgtgtctc | 6060 |
| gtgtgtgtct  | tgctgcgtga  | taggagagcc  | cagagcgagc   | ctgtcgttag  | ccgcctgtgc  | 6120 |
| ggcgcgtcgc  | gtgcgccctc  | gcgccctctc  | gcgcagcaga   | atgatctagt  | ttccccaggt  | 6180 |
| acaggttgtg  | accggtctgc  | ctgctgcctc  | gcctggagtc   | gggcaggagc  | ctctctgcgc  | 6240 |
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<210> 12794
<211> 9266
<212> DNA
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5088

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<211> 465

<212> DNA

<213> Homo sapiens

<400> 12797

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| tcacataggg  | cacatcaact | caggaaaagat | agtcgttgaa  | aagctacctc | agctggggcgt | 180 |
| agtggtcacg  | cctgtaatcc | cagaactttg  | taaggctgtg  | aggcttgtgg | atcccttgag  | 240 |
| accaagagta  | cgagacaaac | ctgagcaaaa  | caggggagacc | cgccctatgc | aaaaaatata  | 300 |
| aaaattagcc  | aggcgtgggt | gtgcactcct  | gttgactcag  | ctattcagga | agctgaggca  | 360 |
| gaaggaccac  | aagaagtcaa | ggccgcagtg  | gggtataatc  | acatcactgc | actccaccat  | 420 |
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<211> 228

<212> DNA

<213> Homo sapiens

<400> 12798

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| atacaaaaaa | aaattagccg | gcgtgggtgg | gggagcctgt | agtcgccagt | actcggggagg | 120 |
| ttgagccgag | agaaatgggt | gaacctggga | ggcggagcct | gtatgtgagc | aagatcatgc  | 180 |
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| gttgacgcga  | gccgagatca  | tgccactgca  | ctccagcctg  | gggtgacagag | cgagagacc   | 120  |
| tgatataaaa  | caaaacaaga  | aacagcaaca  | acaacaaaaa  | ttagcctcgg  | gtggtagcat  | 180  |
| gcactctgtga | ttctcagcta  | cttggggagg  | tgaggttgaa  | ggattgcttg  | agcccaggag  | 240  |
| atcaggggctg | cagtgagctga | tgattatacc  | actgcactcc  | agcctgcagt  | acagaccaag  | 300  |
| acctttgtctc | aaaaataaga  | taaaaaaag   | aatattttca  | aatgtttggc  | aatctgatgg  | 360  |
| gtgaaaaaat  | gcaaatctcat | tgttttcact  | agagttttcc  | tgaatagtgg  | tgaggctggg  | 420  |
| tatcttttgtt | atttggaaat  | gtctacgata  | tttgccact   | tttcaaaaag  | ctcatttgtt  | 480  |
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| gttgtttttct | tcatagctcc  | caaggtatga  | aaatattctc  | ctacagtttt  | gctgtttgtt  | 660  |
| ttttttttctc | ttggagaaaa  | ccatttttat  | tatcatcacc  | acccagctta  | tttgtctggg  | 720  |
| attatgtacc  | agtgccaaga  | tcttctaacg  | aacatctgca  | taacatttat  | tttatgtttt  | 780  |
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| gcacactctc  | ccagccttag  | ttatttacta  | ttttagttaa  | caaaagctta  | caatgaattt | 4440 |
| tgatacctag  | aaagacttga  | ccagatgtga  | ataaacgtaa  | ttgtttctca  | ccaagaacct | 4500 |
| ttgttggtgtg | ctcttcacat  | ggacacgtga  | gacagatttc  | gctaggggaag | caaaatacca | 4560 |
| tggagctggg  | caagaataat  | ccatgattgt  | agagctttca  | atacgccttt  | tattcttgta | 4620 |
| acaaatgaaa  | acaaaagatt  | tatcagacat  | ctccggaaaa  | cctctaatac  | agaagaagga | 4680 |
| gataaaatga  | acaaaacaata | aaaagcaact  | taaaaattgga | cacatataat  | agaagaagaa | 4740 |
| acagtttaaa  | aaaaaataaaa | accocaaacc  | ctattcttca  | gctcacaga   | aagcctggcc | 4800 |
| aacatggtga  | aaccttatct  | ctactaaaaa  | tacgaagtat  | tttagccagc  | catgggtgga | 4860 |
| ctaacctgtg  | gtccagctgt  | ctcaggagtg  | tggcgagga   | gaatacctg   | caccgggagc | 4920 |
| gctgaggctg  | cagttgtctg  | agatcacacc  | acagcaactc  | agcctgggtg  | acagagttag | 4980 |
| accttgtctc  | aaaaaataaaa | aaaaaataaaa | aa          |             |            | 5012 |

```
<210> 12801
<211> 2032
<212> DNA
<213> Homo sapiens
```

| 4200> 12801 |             |             |             |             |             |      |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| gaaagaaagaa | aagaaagaaa  | tcatagacaa  | cgggaataaaa | aactgcaaga  | tacctaggaa  | 60   |
| tgaatccaac  | aaatgcactt  | tcttcacaga  | tcaaacagata | aactcttaatt | gaagactata  | 120  |
| aaaggccacat | gcagtggtca  | tggcaccata  | gccattggatg | aaaagactga  | tcaatgtgtga | 180  |
| gtgtggcagt  | tctcaaaata  | attctggattt | attaatacac  | ttttgattat  | attccaggga  | 240  |
| gagatttttta | taaaatgcag  | accagccagca | gcaattattga | agaggccgacg | acggctattaa | 300  |
| gaagctgcga  | tttcaggcga  | gccagcgcaa  | gaggcaccag  | ggccctcagc  | gcagcagtgta | 360  |
| gcccggaagag | gccgcgaagt  | gcagggtacc  | tctgcgcact  | agaggaaggag | ccatgttgtct | 420  |
| aaatggtgtt  | gggacagctg  | atgcctatac  | gaaaagggatg | cagtgatagc  | ccctacctac  | 480  |
| accatgcaca  | aaacacatac  | cagtgtagaga | ctcaacctgt  | aaaagccttt  | cagagaaaaaa | 540  |
| tcaagagagat | attctcttaa  | cagtgtagaga | caaaaagaca  | gattgacaaa  | gagattgagg  | 600  |
| gttaagacat  | caatagtggtt | gactctcacg  | actctctcat  | gaccacacga  | aaaattgtcac | 660  |
| ggttttaagt  | gatattggcc  | aataagaaaa  | gatatattga  | gtatctacga  | gttacagaat  | 720  |
| atatataaaa  | atgatgtgcaa | ctgtctctgtc | tgaaaaaaaa  | gcggcaaacat | cacacatcga  | 780  |
| taaggatttg  | gggacatttg  | cttgttgtgt  | tactcggcag  | agbtgtagatg | gtcaccattc  | 840  |
| tggggaatga  | aatggccctt  | cctggggaga  | tcagagtcac  | gcagagatac  | tgactggcag  | 900  |
| ttccgcttca  | ggcgcttctc  | tctccacacg  | caaggacaga  | tgaagttgtt  | gactgtgaca  | 960  |
| tggtttctaa  | agccggggcg  | agctcaaatg  | acgggggtag  | ttgtcacagt  | gaaggttaacy | 1020 |
| caagatataa  | tgaagttaacc | agagctgtgt  | gtctctggcc  | agataaatct  | tcaaaagctta | 1080 |
| acataaagaa  | gcagatttgc  | tgaataaaat  | gcccctattt  | gcactgcagc  | agggttttttg | 1140 |
| aaatgtcgaa  | ggcatgttac  | gttgtgtgat  | agcgtgcgta  | acagcgaaag  | ccctcagcac  | 1200 |
| ccctgggagac | gcgccctacg  | ccaagtgtaga | gcgccccacg  | gcaggtgcga  | gggcagacga  | 1260 |
| tgcttttttat | gtgtctaaaa  | ttatgctctc  | ctatgaaaaa  | aaaaaaagag  | caaacacattg | 1320 |
| taaaattctta | gcaaaagtag  | agctgagttg  | tgggtagaag  | gactactact  | gtgtcccttt  | 1380 |

|             |             |             |            |             |             |      |
|-------------|-------------|-------------|------------|-------------|-------------|------|
| ctgtatctta  | aaatggttat  | cattacagtt  | ttagaactga | atctggtttt  | aaatacacggc | 1440 |
| cgtcacgtga  | gggtgggggtt | gtctgtgtct  | gtctaatccc | cacacaaagg  | gcagcccttg  | 1500 |
| ccccattctc  | ccgtgccatc  | ccttgtgtac  | gccagccgtc | gggagtcagc  | cccttgtctgt | 1560 |
| ctgaaggctg  | tcgggccgtg  | gcccatgcg   | agctcctgtt | tgctctcagaa | gaactggctt  | 1620 |
| ccctcaagctt | tgatagggcc  | aaaaggaggga | ccctcatctt | caagccctaa  | cagccttctct | 1680 |
| aaagtccacc  | agacctgcc   | gttctgcccc  | ggcgtccaga | cggcaggcat  | cttagacgtc  | 1740 |
| gctgcgaagg  | tctgtccag   | atggttgagca | ccttagacag | acgttgcgtg  | aaggcactgc  | 1800 |
| tctgaacgtg  | gggacaccaa  | cagacgttcc  | gggaaggcac | tgctccggat  | gttgggcctc  | 1860 |
| ttagatgttc  | ctggaaggca  | ctgtctctgga | cagtggacac | cttagacaga  | tgttctctgga | 1920 |
| aggctctgt   | ccgatgttcc  | tggaaggctc  | tgctccgaac | agtgggccac  | cttagacagac | 1980 |
| gttctctgga  | ggctctgtct  | cgaaacagtg  | acaccttaga | cagatgttcc  | tg          | 2032 |

<210> 12802

<211> 144

<212> DNA

<213> Homo sapiens

<400> 12802

|            |            |            |            |            |             |     |
|------------|------------|------------|------------|------------|-------------|-----|
| gggtggcagg | gcctgtaata | ccagttactc | aggaggctga | ggcaggagaa | tcacttgaac  | 60  |
| ctggggaggc | gaggttgtag | tgagccaaga | tcacaccact | gcactccagc | ctggggcaaaa | 120 |
| gtgtgagact | acatctcaaa | aaaa       |            |            |             | 144 |

<210> 12803

<211> 187

<212> DNA

<213> Homo sapiens

<400> 12803

|            |            |            |            |            |            |     |
|------------|------------|------------|------------|------------|------------|-----|
| ttgtttcttt | tttttttttt | tttttttttt | ttgagacaga | gtcttgccct | gtgccccagg | 60  |
| ctggagtgca | gtggcgcat  | ctgggctcac | tgcaagctcc | gcctcctggg | ttcatgccat | 120 |
| tcttctgctc | cagcctcccg | agtagctggg | actacaagcg | cccaccacca | cgcccagcta | 180 |
| attttttt   |            |            |            |            |            | 187 |

<210> 12804

<211> 3834

<212> DNA

<213> Homo sapiens

<400> 12804

|             |             |             |             |             |             |      |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| cgccctcccc  | caaaaaaaag  | aaaagaaaaat | cgaaagtctg  | tactatagtt  | ttgggtccagc | 60   |
| tcctctaaaa  | tttgttttagc | tgcaaaaaat  | taagtgggat  | aatgcatgag  | aaggcatttg  | 120  |
| taaaactgca  | agtgctagaa  | atgtctgtgag | gtaaccttct  | tcacccctct  | cctcactatt  | 180  |
| ctctgtctac  | agtggtattt  | cccaaggcat  | tctccttgaa  | accttagtct  | ctcattatgc  | 240  |
| cttcacaaga  | ggaggagag   | aggcattgct  | agaaaaatgct | gcatgccctc  | ctgggagatc  | 300  |
| ggagagctac  | aacatgcttt  | agcattttaa  | agtctatgaa  | acaggccaga  | cggatgttgt  | 360  |
| ggctcaagcc  | tgtaatccca  | gcactttgga  | aggctaaagg  | gggtggatca  | ctcgaggtaa  | 420  |
| ggagtttgag  | accagcctga  | ccaaagtggc  | ctctactactg | ctctactaaa  | aaatattaaa  | 480  |
| aaattagctg  | gacgtgggtg  | cttatgcctg  | taateccagc  | tactcaagag  | gctgaggcac  | 540  |
| cagaatcgct  | tgaaccagg   | aggcggaggt  | tgcatgaagc  | caaggttggg  | ccactgtact  | 600  |
| ccaacctggg  | caacagagtg  | agactctgtc  | tcaaaaataa  | aaaaataaaa  | taaaggctat  | 660  |
| gggcccgggc  | tggttgctca  | cgctctgaat  | cccagcactt  | tggaaggctg  | aggtgggtgg  | 720  |
| atcacagaag  | caggagatcg  | agaccatctc  | ggctaacacg  | gtgaaacccc  | gtctctacta  | 780  |
| aaaatatcaa  | aaattagctg  | ggcaccgttg  | cgggcgccta  | tagtccagc   | tacttgggag  | 840  |
| gctgaggcag  | gagaatggca  | tgaacctggg  | aggcggagct  | tgcatgaaac  | caagatcgctg | 900  |
| ccactgcact  | ccagcctggg  | cgacagagcg  | agactctgtc  | tcaaaaaaaa  | aaaaaaaaaa  | 960  |
| aggctatgaa  | acaattgtga  | agacacctgt  | tggtatctaa  | ttaaacttagg | gtgtacaaac  | 1020 |
| tgattttatt  | aaaatttcaa  | aaaatttgaa  | ttttaagctt  | ttaacagggg  | aggcaaatct  | 1080 |
| tgattatctga | tgagaaatgt  | gtttggggaa  | gagctgtgtc  | gtctccactg  | ctgcctcctc  | 1140 |

|             |             |             |             |             |             |      |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| tctctcacct  | tcttcccta   | ctgccctact  | gaaacttctc  | tcaaaaggca  | ttagtgaggg  | 1200 |
| gcctccgaat  | tgccaaatcc  | caagccctct  | tagtctttag  | catatttgac  | accatttgcca | 1260 |
| catttctatc  | taaaaatctc  | tcccctctag  | ctctctgtgat | atactctggg  | tattttctct  | 1320 |
| ctctggcttt  | ctcttagtct  | ttttattctt  | gctctgtaaa  | ttccatgact  | tttttttttt  | 1380 |
| tttttttttg  | agacggagtc  | ttgtctctgtc | gccccaggctg | gagtgacgtg  | gtgcaaatctc | 1440 |
| ggctcactgc  | aagctccacc  | tcctgggttc  | acgccattct  | cctgcctcag  | ctccccaagt  | 1500 |
| agctggagct  | acaggtgcgc  | gccaccacgc  | ccagctaatt  | ttttgtattt  | tttagtagag  | 1560 |
| acggggttct  | accggtgttag | ccaggatggt  | ctcgactctc  | tgacctctgt  | atccgccacc  | 1620 |
| ctcggcctcc  | cagaatgctg  | ggattacagg  | agtgaaaatt  | tcataacttt  | cgactatcac  | 1680 |
| tctcaacccc  | tcttttgaag  | ctccagctct  | atattccatg  | tgactagcag  | ggatgcacttg | 1740 |
| ggccccccat  | atgcacctta  | aaacttagtcc | agtcocaaagt | aagcttcgca  | tttccctttcc | 1800 |
| ccagacttcc  | aaaacctata  | ccacccccct  | cattcttgcaa | ctcagttaac  | agcataaactc | 1860 |
| ccatacccag  | tcacttaggt  | tggaaacctc  | agtcatttga  | ttcctttctg  | accctctcac  | 1920 |
| tgtctccctc  | tccgcagctg  | tatacagggg  | gctagacctg  | caaattctgt  | ctctgttaata | 1980 |
| ggccttatgc  | tcttattttt  | tcttcatttt  | cattttcaact | gccctaactg  | agggccctcat | 2040 |
| tgaacctctt  | cttttggaact | ttacatatat  | cctctacaca  | atcagcagga  | ttttcttgct  | 2100 |
| gaacacagtg  | tgacttagtc  | tctcctgctt  | aaaactcctc  | aaaggctctt  | cacttacagca | 2160 |
| atacaataaa  | atactagtagc | attttagcta  | tgtctggaca  | caegtgttct  | tattacaatac | 2220 |
| caactccttcc | ctctgtctctg | tgttttttgc  | ttatgctcat  | ctgtttggat  | tttttttctc  | 2280 |
| cctgacagaa  | ttgtactctag | gcctcaaaagc | ctaattcaaa  | aggtcacttc  | cttccctaag  | 2340 |
| cctaacctac  | ctcccaataa  | tatttaatgg  | taatttctct  | ttgtgattacc | cctatagaat  | 2400 |
| aacgtagcag  | ttatgcttat  | taagggtaac  | ataaagggta  | tttaaccctat | tatgttatgc  | 2460 |
| tgttttgttt  | gtatatgtct  | ctgtctctcaa | aggctgtgag  | ctctatgagg  | acaggaacta  | 2520 |
| tcttaataca  | tttgtgtattc | ctagcacccc  | atacaagtgc  | tggaaatata  | gctcaataca  | 2580 |
| ataaactgtt  | gtaaattgaa  | ttgaattgaa  | gggacattac  | aacatttgtag | tataaatcac  | 2640 |
| tttgtagctc  | gagatgtatc  | actactgcga  | atactaaaag  | tggagaacaa  | tataccttta  | 2700 |
| ctattcagta  | gaatatgttt  | atggttaaat  | caatagcatc  | gtgtaacatg  | tgatgatgtg  | 2760 |
| cgttttatga  | tattttccaa  | tatttgaag   | tttaatactg  | accacagatg  | atatggctat  | 2820 |
| tgaagaaaac  | cacacataat  | atgtgtgtga  | ggtttgaaac  | tagctctctg  | gcctagggct  | 2880 |
| gtcttttgtc  | cttggcaaat  | tgtggaccctg | ggcatgatcg  | ctctgaaat   | ttagccatcc  | 2940 |
| tcctgatagc  | atgtggaaata | actggtttac  | agttcatctg  | tttcaatacat | actctgccta  | 3000 |
| gcattgtaaa  | ttaaactggaa | actgaggaat  | tggagccaaa  | gttagaaaaa  | gaggagagtt  | 3060 |
| caacttgtaa  | catcaggaaa  | caggctgatt  | acatgaaggt  | ctttttgttt  | gtttgttttt  | 3120 |
| aacataataa  | atagagatgg  | ggtttcacca  | tgttggccag  | gctgggtctca | aacttgtggg  | 3180 |
| ctcaagcaat  | cctcctgcct  | cagcctcccg  | aagtgtctgg  | attacaggcc  | tgagccacca  | 3240 |
| tgcccatcct  | atattttttt  | tcaggcaata  | tccttttgtg  | ctcaagaaat  | taagacacac  | 3300 |
| accccaccac  | aaactacatt  | tgaagactct  | gccaaaaaaa  | tgccatgttt  | tttctcattt  | 3360 |
| tcttttcata  | gtaattaatg  | ataccaagaa  | cacttatatg  | catggtttat  | agcagttggc  | 3420 |
| tatggtcaca  | aaaagtgtgg  | cttcccctct  | gagacatttg  | gagatatatg  | tcattcgtat  | 3480 |
| accatcagtg  | gcaaaataatg | cttatcttaa  | gatctaactc  | cacagggcat  | ctggggctca  | 3540 |
| cgctctgaat  | cccagcactt  | tggggaggcca | agggcaggag  | atggcttgag  | gccagcagtt  | 3600 |
| taagaccaac  | ctgggcaaca  | tggcaggacc  | gtctctctac  | aaaaataaaa  | aaaagttagc  | 3660 |
| caggcatcgt  | ggcttaacct  | tgtggtccca  | gctgcgcagg  | agggctgagg  | agaaggatca  | 3720 |
| cttgagcact  | agaggtggag  | gttgcaatga  | gctgagatgt  | gagtcgccag  | ggactccagg  | 3780 |
| ctgggtgaca  | gagcaagact  | ctgtctcaga  | aaacaaaaaa  | aaaaaaaaaa  | aaaa        | 3834 |

&lt;210&gt; 12805

&lt;211&gt; 464

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 12805

|            |            |             |            |            |             |     |
|------------|------------|-------------|------------|------------|-------------|-----|
| gaggcaggag | gatacattga | acctggggagg | cggagggttg | agtgagcgca | gattgtgccca | 60  |
| ctgcactcca | gcctgtgcga | tagaatgaga  | ctctgtctca | aaatatatat | ataaaataat  | 120 |
| aaaaataaaa | aactagatgg | tagtggaggga | ggttacacta | agaatagaac | aaactcttca  | 180 |
| agatagatgt | aggctcagat | gtcatacatt  | gaatatacca | tgccgttcat | ctattctaaq  | 240 |
| actgactttt | gagaataatg | gctagtaggg  | cacagagaaa | taagggaagt | cttagttcag  | 300 |
| aggggtcttt | gtggctagca | actcctaggt  | ctctccttac | aacttagatt | ccaagattac  | 360 |
| aaacactagt | atatgctgta | ttaggatttc  | tagaaactga | atatcaagtc | tcagaccagg  | 420 |
| cacgggtgct | cacgcctata | atccaagcac  | tttggggagg | tgag       |             | 464 |

<210> 12806  
 <211> 299  
 <212> DNA  
 <213> Homo sapiens

|             |             |            |            |            |             |  |     |
|-------------|-------------|------------|------------|------------|-------------|--|-----|
| <400> 12806 |             |            |            |            |             |  |     |
| ggcgcggttg  | ctcagcgctg  | taatcccagc | actttgggag | gccgagggcg | gcggatcacg  |  | 60  |
| aggtcaggag  | atgagagacca | tcccggctaa | cacggtgaaa | cctgtgtctc | acttaaaaaa  |  | 120 |
| caaaaaatta  | gctggggcgtg | gtggcaggca | tctgtagtcc | cagctactcg | ggagggctggg |  | 180 |
| gcaggagaa   | ggcgtgaact  | caggagggcg | agcgttcagt | gagccgagat | cacgcccactg |  | 240 |
| cacttcacgc  | tgggcgacag  | agcaagactc | catctcaaa  | aaaaaagaaa | aaaaaaaac   |  | 299 |

<210> 12807  
 <211> 1915  
 <212> DNA  
 <213> Homo sapiens

|             |             |             |             |             |             |  |      |
|-------------|-------------|-------------|-------------|-------------|-------------|--|------|
| <400> 12807 |             |             |             |             |             |  |      |
| caaatgttgg  | tttgtatata  | tattttttta  | aaggcactag  | acttagaaat  | gccaaagtaa  |  | 60   |
| ttaatttttc  | ttattttcag  | aaacaattta  | gtgttcacgt  | tacgaagtgt  | ttctaaattg  |  | 120  |
| aaacactttc  | agatttaagg  | atttaagata  | actgggtgct  | cttttctata  | agtagtaata  |  | 180  |
| atgagatcat  | gcttcagcta  | catatcagat  | accagatctc  | acttctctgt  | cctttatttc  |  | 240  |
| attctccat   | tcattcagca  | aattatttgc  | gagcactaaa  | atgctccaga  | cacagtgcat  |  | 300  |
| gaacctctga  | gatataaggca | aattgcataa  | cccaagcaaa  | gggcccagaga | tgagcaacag  |  | 360  |
| catgttacat  | accaccaact  | aagaacttca  | ctatggctag  | gatataataat | ttagaagaaa  |  | 420  |
| gaaggttaag  | ttggggtagag | aggaagcata  | ataaattatg  | aatttagaga  | tgtaatacaa  |  | 480  |
| ttatgaagg   | tcagtgaagc  | cttgtacaag  | attttgagtt  | tgatctccat  | agagtcataat |  | 540  |
| aattagatta  | attttagaaa  | gctcatagtg  | ctgcagatgt  | ggagagttaga | ttagaaggaa  |  | 600  |
| gcaggcctgg  | aagcaggagg  | atcattttgg  | agacttttcc  | aggacagaga  | aaatggtggt  |  | 660  |
| ctaaacttgg  | atggttgcaa  | gggggatgaa  | aagaagtaga  | tattlaagag  | aaaatttaag  |  | 720  |
| aatacttatt  | tagttcaaga  | acgttctctg  | aagaatgagc  | ctaaccatat  | tcttgatcat  |  | 780  |
| ctaaggaagg  | tctattcctt  | ctcaaggaca  | gctaagtaaa  | ctaataattg  | attctaagtg  |  | 840  |
| atgtaattga  | acagttcaaaa | gcagttattc  | gtcattagaa  | attatgtata  | ctggtcagat  |  | 900  |
| aatacctact  | gagagctagt  | cccatataat  | ttcatcataa  | ttataatcat  | agcatttaag  |  | 960  |
| cttatattatt | tctcagcatt  | tctatgttct  | cagttttata  | gcactgaata  | ttttaaatgg  |  | 1020 |
| tttatattac  | tttaactctca | cagtagcttt  | acaggtagat  | attatgttta  | tttccatttt  |  | 1080 |
| acaggtggag  | accaaggtct  | agagaagtta  | agtactttgc  | ctaaaagtac  | acaggttgta  |  | 1140 |
| aatggtaaa   | ctattatttg  | aaacttagtg  | ctttttagtt  | actggccagc  | ctgggattag  |  | 1200 |
| aaaccagctc  | tatcctgtat  | tattattttc  | aagactttta  | ttttgtttgg  | ggtaaatg    |  | 1260 |
| taaatattct  | tacaactctg  | ttttagccca  | gtcttgcata  | taatacatat  | ttctgcataa  |  | 1320 |
| ataagataag  | ctagagtttg  | agtgaagaca  | tagtgaagaa  | tattgactat  | ttgttttttt  |  | 1380 |
| ctttccaatt  | agttagggtta | aagcaaggtg  | aaaggggaag  | ggatggtaag  | gcattttgg   |  | 1440 |
| gaggcaatca  | aatatgtttt  | tttctaatta  | tatatattcca | agccaataat  | ttgttttttt  |  | 1500 |
| aagaatgttt  | taagcgtgtt  | tctttaccat  | gttagggcag  | taggtcacaga | gaaataaata  |  | 1560 |
| ttagctcttt  | atgcacagat  | aggttaacaaa | gcttaaaaaa  | attcacagct  | gaatgcacaa  |  | 1620 |
| gtgaaggccg  | ttgacaagag  | aggttgcat   | acttcaacca  | gggtactgac  | agtgaaccaa  |  | 1680 |
| aaaaagaact  | gagttcttag  | cttccatctc  | caggctacat  | cttaactgac  | taagaggcca  |  | 1740 |
| gttttagctgt | ccaggaagaa  | ctcgatttgc  | aactctcact  | gataattttg  | caacagtgac  |  | 1800 |
| aataaagaat  | gaatttttaa  | aagaaaaaact | tgctccctg   | aactattgaa  | ctccagaaaa  |  | 1860 |
| agtagtactt  | acagtctttg  | ctttaagaga  | aaccagttaa  | aaaaaaaaaa  | aaaaa       |  | 1915 |

<210> 12808  
 <211> 451  
 <212> DNA  
 <213> Homo sapiens

<400> 12808

|             |             |             |             |            |             |     |
|-------------|-------------|-------------|-------------|------------|-------------|-----|
| tgaataataa  | ttgtcaacct  | ggaactatgt  | acctggaac   | ccatctttca | tgtacaaaaga | 60  |
| tgaagtaaaa  | taaagatatt  | caaaaacgag  | gaataattac  | agacctttgc | gaagaagtgt  | 120 |
| taagaggggtg | tatttcataa  | aagtcccaag  | caagtctctga | gatgcaagaa | tgaattatcga | 180 |
| gccaatatac  | tgattaaaaa  | gtttcatata  | aatcatcatt  | gtttctataa | agtgataaatt | 240 |
| gtaataatgt  | aatttgttagg | acttttataa  | aaaaatttct  | ttaatttgag | acggagtcttc | 300 |
| tcgatctctt  | tttattttgag | acggagtcttc | ctctctgttg  | ccaggctcgg | agtgcaattgg | 360 |
| tcgatctctc  | actcactgca  | actccgcct   | cccccgttcg  | gggtttcttc | ttgccccagc  | 420 |
| ctcccaagta  | gttgggatca  | caggcatgcg  | c           |            |             | 451 |

<210> 12809  
 <211> 423  
 <212> DNA  
 <213> Homo sapiens

|             |            |            |            |            |             |     |
|-------------|------------|------------|------------|------------|-------------|-----|
| <400> 12809 |            |            |            |            |             |     |
| tggggaatga  | gaatttctgt | ctttgccttt | ectcttggga | tgtgagactt | ttaataatct  | 60  |
| tgaataatga  | catgaatagc | caacaaaact | cttagttctc | ttcttttaaa | tgtaaaaaacc | 120 |
| attataccca  | aggtataact | ttcttctctg | tttaattcag | cagtttttcc | aattgtacct  | 180 |
| agggttttta  | cttacagatt | ttaattgta  | ctttatata  | gtttttttt  | aataatactc  | 240 |
| tgcaggctac  | taataagggg | attgtatctt | cgtttggcct | aagtccagca | atctgaaagt  | 300 |
| tggaagttca  | gaagcacttc | gcaccatatt | ccaaagtctt | gtttttgatc | agagttgaca  | 360 |
| ttattgagtc  | agaatccaga | aagcaacctc | acttgtgaca | ctgataggag | tccaaggagg  | 420 |
| cag         |            |            |            |            |             | 423 |

<210> 12810  
 <211> 2661  
 <212> DNA  
 <213> Homo sapiens

|             |             |             |             |             |             |      |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| <400> 12810 |             |             |             |             |             |      |
| ctggagattgg | ctcgcggttg  | ccagggaggga | gagtttggcg  | gcagatgggtg | gcacacaaca  | 60   |
| tttagcgcca  | tgcaaaaggtg | cagaaaaagat | tgcgcgaagc  | gaggtctagca | gtcggagccta | 120  |
| gtctccgccc  | cttctcgtctg | tgttcaacct  | cccagcgctcc | ctgtccccct  | ccaccgcgaag | 180  |
| cgatgggttg  | ttccgtcagg  | gcgcttcccg  | caaccttccg  | ctccctgctt  | gcacaaagtgt | 240  |
| tgtgccccaa  | gggtccgcttc | caggccacgt  | gggtgctcgc  | ggccaaagtct | tccttctctt  | 300  |
| tcgagagagtg | ttccgctgtg  | ggagcagagc  | ttccgggtcg  | cgctcttctg  | tgcccagttt  | 360  |
| cgagctagtg  | gtcgcgtctc  | cgcccccaac  | ccaccagtc   | cgctgcatc   | tgcggccgggc | 420  |
| tctaggcgcc  | atggctcccc  | gcggggaggaa | gcgttaagct  | gagggccggg  | tggctccgctg | 480  |
| agccgagaag  | cgagagaagc  | tgccgaacgg  | cgggggaggga | atggagggagg | cgaccgttgt  | 540  |
| tatcgagcat  | tggtgagggg  | cttgagaggt  | aacgggagag  | aggggaacagt | ggcgccgggg  | 600  |
| ggggccaggg  | gcccgggttt  | ctaacctctc  | cgctctctcc  | tagcaactag  | tgacgcgtct  | 660  |
| atggggcgcaa | cgccgcggcc  | ctgagccagg  | cgctgcgctt  | ggaggcccaca | gagcttccag  | 720  |
| taaaagtgaa  | cccgcagga   | ccccggaggg  | gcagcttcga  | ggtgacgctg  | ctgcgccggg  | 780  |
| acggcagcag  | tgagtgggga  | cttgatgtg   | ggggagaggg  | acgtgggtga  | aagggacgtg  | 840  |
| gggttcggaag | acaggaagcg  | ctattcttag  | aaaccacggc  | agttctcatga | cttcagagac  | 900  |
| gtgctctgtg  | gttcggaagt  | attgtaactt  | cgcttcattc  | tgcccttcta  | gggtgcggagc | 960  |
| tctggactgg  | gattaaagaag | gggccccac   | gcaaaactcaa | attccctgag  | ctcacaagag  | 1020 |
| tgggtgaaga  | gttgaagaag  | tacctgtcgt  | agggagattt  | gggtagaagc  | cgctatcgtg  | 1080 |
| aggtttgaaa  | tgggaagtgg  | ggggcgccag  | cgctgttgag  | gaagagaagg  | catgatcttt  | 1140 |
| gggttggtcta | caagtaccga  | ctctggcgtg  | gtagctcagc  | ctctgcaatc  | caggctctctg | 1200 |
| gcaggtgcgag | gcaggaggtg  | atggccaaca  | gcaggagacc  | ctatttgaaa  | caaaaaaaca  | 1260 |
| aaaaaaagag  | acaatatgtg  | tttctgtcta  | gtgtgcccta  | agtggaattt  | atgtcccttg  | 1320 |
| ggagactgta  | gttgacttgc  | cttgggggtg  | tggacaagtt  | ttccattttg  | gatttttatt  | 1380 |
| catgttactt  | catctatgct  | tatccctacc  | ctcttctggt  | tggttcttgg  | gtgttctggt  | 1440 |
| actgtctcgt  | gttaacactg  | cattacaata  | ccattaaatt  | tggttacaag  | gattttgacc  | 1500 |
| ttgtctttgt  | ccctagtgtc  | tcatacagtg  | ctttggcatg  | ttgtttctga  | cttatatagt  | 1560 |
| tgagttagat  | ttggcgaag   | gatgcaatc   | ttgagcttca  | gggttttgga  | gttcaagggt  | 1620 |
| tggggaacat  | gtcttctcca  | gtccttaaga  | ttgcccgat   | ctttctctca  | accttatttc  | 1680 |
| ctctctcaat  | tttgacgctt  | tgtgtccctg  | gtgatgttgg  | aacattaatg  | atggaacatg  | 1740 |

|             |             |             |             |             |            |      |
|-------------|-------------|-------------|-------------|-------------|------------|------|
| gcacaaacttc | agtcatgatac | ctgaagccat  | ggtttcttcc  | ctgccagaaa  | tgaaggttca | 1800 |
| gttatgaggc  | aacctcttag  | taaggcatct  | taaaaggttac | tgatttttgt  | taataaaaaa | 1850 |
| ttgaataaaa  | gtatttgtagt | aataagatgaa | aacttaatct  | tgaaggtgatg | acaaagccag | 1920 |
| cccttggtgag | ttggtgatcc  | tttaagttcc  | catagcccaa  | gatagccatct | tgacctggaa | 1980 |
| ctctttaaaaa | aaaattttttt | tttagtgatc  | agagctctac  | tttgtcacc   | atgctggagt | 2040 |
| atagtgtgttc | tatctcgctc  | cactcgaacc  | atgtctctcc  | aggttctaa   | gatactctgt | 2100 |
| ctccagtctc  | ctgagttagt  | gggatcatgc  | ctgcacacca  | caacgctctc  | ctaaattttt | 2160 |
| tattttttatt | tttagtaaa   | gcggggtttc  | accatctgtg  | ccaggtctgt  | ctcaaaactc | 2220 |
| tgacctctaa  | tgatatgcct  | gccttgacct  | cccaaagtgc  | tggggttaca  | ggcatgatga | 2280 |
| gcacacgcac  | ctgggctgac  | ctgcaacttt  | tatgatctct  | ggtaaaacct  | gagaaataat | 2340 |
| ttgaaataatt | atggaggacaa | agataataat  | ttatttttta  | aaaaagcaac  | tgtattcttt | 2400 |
| tcaacttact  | ttttggaagt  | aatgatgtaa  | gtacatcttc  | ttggccctgt  | cagaggtttt | 2460 |
| agctagatct  | ctctaatactg | gcagtgtaata | agccccagct  | tggtgtctgt  | acagatctca | 2520 |
| ctactccctc  | ccacttagta  | ttccacacca  | cactgctcca  | caactcttcc  | ttggaacttt | 2580 |
| ctctaaacaa  | taccaccaac  | cagaggaggg  | tgtcttttct  | cgacttttcc  | taaatatcca | 2640 |
| gttagctggt  | gccttatgac  | c           |             |             |            | 2661 |

```
<210> 12811
<211> 2660
<212> DNA
<213> Homo sapiens
```

|             |             |              |             |             |             |      |  |  |  |
|-------------|-------------|--------------|-------------|-------------|-------------|------|--|--|--|
| 400> 12811  |             |              |             |             |             |      |  |  |  |
| ctgggattgg  | ctctgcggttg | ccaggaggagga | gagttttggcg | gcagatggtg  | gcacacaaca  | 60   |  |  |  |
| tttagtcgcca | tcgcaaaagta | cagaaaaagat  | tgccgcgaagc | gaggctagca  | gtcgacccta  | 120  |  |  |  |
| ctgtccgcgc  | ctctctcgtg  | ttcttccact   | ccacgcgctc  | ctctgctccct | ccacccgaag  | 180  |  |  |  |
| cgatgggtgg  | ttctcgtcagg | cgcttcccg    | acctctccgc  | tcctctggtg  | caaatgtggt  | 240  |  |  |  |
| gtgcgcccaag | gtccgcctcc  | agggccacgtg  | gggtgcgcgg  | gcctaagctt  | cccttctctt  | 300  |  |  |  |
| gagagagatt  | tcctcgtctag | gcagcagagct  | tcggggtctg  | gtctcttggt  | ggccagtatt  | 360  |  |  |  |
| cgctcagctg  | tcgcgtctctc | gcgccccaac   | caccagctcc  | ctgctcatct  | ggcgccggct  | 420  |  |  |  |
| ctaggcgcca  | tgctctcccg  | cgggagagga   | ctaaggctg   | agggccgggt  | ggtgcgccta  | 480  |  |  |  |
| gccaggaagc  | gagagaagct  | ggccaaacgcg  | ggggagggaa  | tgaggagggc  | gaccgtgtgt  | 540  |  |  |  |
| atcgacgatt  | ggtgaggggc  | ctggagagta   | acgggagaga  | ggcaacagt   | gcgcgggggg  | 600  |  |  |  |
| gggcacaggg  | ccccggttc   | tgaactctcc   | gtctctcct   | agcactagct  | gacgcgtcta  | 660  |  |  |  |
| ttgggcgcaac | gcgcgcggcc  | tgaecagggc   | gtcgcgctct  | gaggccccag  | agcttctagt  | 720  |  |  |  |
| aaagttcgac  | gcagcagaagc | cccggagagg   | cagcttctag  | gtcagcgtc   | tgccgccgga  | 780  |  |  |  |
| cgcgacagct  | aaagtggggac | ctggatgttg   | gggagaggga  | ctgtggatga  | agggacgtgg  | 840  |  |  |  |
| gtctcggaag  | cagggaagcgc | tattcttaga   | aaccacggca  | ctctcatgac  | ttcagagacg  | 900  |  |  |  |
| tgctctgtgg  | ttccgaagta  | ttgtaacttc   | gcttcatct   | ggcctttacg  | gtcgccgagct | 960  |  |  |  |
| ctggactggg  | attaagaagt  | ggccccacg    | caaaactcaa  | ttcctctgac  | ctcagaaggt  | 1020 |  |  |  |
| ggtggaagag  | ttgaagaagt  | ggctctctga   | gggagattg   | ggatgaagcg  | ctcatgtcta  | 1080 |  |  |  |
| ggtttgaagt  | gggaagtggc  | agcgcgacc    | ctgtctagg   | aaggaaggc   | attgatcttg  | 1140 |  |  |  |
| gtgtggctac  | aagtaccac   | ctggcgtggg   | tagctcacgc  | ctgcaactc   | agcactctgg  | 1200 |  |  |  |
| gaggtcgagg  | caggatgtga  | ttggccaacac  | agggagacc   | tatttgaaa   | caaaaaacca  | 1260 |  |  |  |
| aaaaaaggg   | caatatgtgt  | ttctgtctag   | tgctccctaa  | gtggaattta  | tgctctttgg  | 1320 |  |  |  |
| gagactgtag  | ttgaatttgc  | ctgggggtat   | ggacaagttt  | tcattttgga  | agtttatctt  | 1380 |  |  |  |
| atgttaactc  | atttatgtct  | atctccactc   | ttctctggt   | tggtcttgga  | tgctctgta   | 1440 |  |  |  |
| ctgtctctgt  | ttaacactgc  | attacaatac   | cattaaattt  | ggttacaatt  | attttgacct  | 1500 |  |  |  |
| tgtctttgtt  | ccctagtgct  | catacagctg   | tttggcatct  | gtgtctcgac  | ttattatgct  | 1560 |  |  |  |
| gagtgagatt  | tgggaggaag  | atgcaactat   | tgagctctac  | ggtttctgag  | ttcaagggtt  | 1620 |  |  |  |
| ggggacacgt  | tcctctctag  | tccttaagat   | tgccacatc   | ctctctctaa  | cccttatctt  | 1680 |  |  |  |
| cttctcattt  | ttgcagcttt  | gtgatctgat   | tgatgttcca  | acattatga   | tggaacatgt  | 1740 |  |  |  |
| ccaaactcta  | tgcattgattc | tgtaagccatg  | gtttctccgc  | tgccagaagt  | gaaggtctac  | 1800 |  |  |  |
| tttatgagga  | acctctagt   | aaggactgtg   | aaaagt tact | ggattttggt  | taataaaagt  | 1860 |  |  |  |
| tgaataaag   | tttttggata  | atagatgatt   | acttaataat  | aagggtgaa   | caagagacct  | 1920 |  |  |  |
| cttgtgtgag  | tgtagtctct  | tgtgttttct   | atagcccaag  | atagccatgt  | gacctggaac  | 1980 |  |  |  |
| tttttaaaaa  | aaattttttt  | cttgaagcca   | gagttctact  | tggtcaccca  | tgctggagta  | 2040 |  |  |  |
| tagtgggtct  | attctggctc  | actgcaacca   | ttgtctccca  | ttgtcaagcg  | ataactctgc  | 2100 |  |  |  |
| ctcagctctc  | tgtagatgct  | ggatcacaga   | tgcacacacc  | cacgcgtctc  | taatttttct  | 2160 |  |  |  |
| attttttatt  | ttataaagg   | cggggtctgc   | ccatgttggc  | caggtggctc  | tcaactctct  | 2220 |  |  |  |

|            |             |            |            |             |            |      |
|------------|-------------|------------|------------|-------------|------------|------|
| gacctcaagt | gatatgctcg  | ccttgacctc | ccaaagtgtc | gggggttacag | gcatgatgag | 2280 |
| ccaccgcacc | tggtcctgacc | tgcaactttt | atgatctctg | gtaaaacatg  | agaaatactt | 2340 |
| gtaaaaatta | tggtgagcaaa | gtaaaataat | tattttttta | aaaagcaact  | gtatcttttt | 2400 |
| caacttactt | tttggaaagta | atgatggaag | tacatctctc | tggtccctgc  | agaggtttta | 2460 |
| gctagacttc | ctaatactgg  | cagtgaataa | gccccactgt | gggtgtctga  | cagcatccat | 2520 |
| cactccacc  | cacttagtat  | tccaccaac  | actgtctcac | accttctctc  | ggaaacattt | 2580 |
| cttaaacat  | acccccacac  | agaggagggt | gttctttctc | agcttttctc  | aaattaccag | 2640 |
| tgactggatg | ccttatgacc  |            |            |             |            | 2660 |

<210> 12812  
 <211> 793  
 <212> DNA  
 <213> Homo sapiens

|             |             |            |             |             |             |     |
|-------------|-------------|------------|-------------|-------------|-------------|-----|
| <400> 12812 |             |            |             |             |             |     |
| tggtggggcg  | gaccgtgtgt  | gaggaagaga | aggcattgat  | cttgggtgtg  | ctacaagtac  | 60  |
| ccacctggcg  | tggtgtagct  | acgcctgcaa | tcccagcact  | ctgggagggt  | gaggcaggag  | 120 |
| tggaatggca  | acacaggagg  | accctatttg | aaaaacaaaa  | agattttgag  | gacacaatat  | 180 |
| tggtttctgt  | ctagtgtgcc  | ctaagtggaa | tttatgtcct  | ttggggagact | gtagtgtgact | 240 |
| tgccctgggg  | ggatattgaca | agttttccat | ttgggaagtgt | atttctatgt  | acttcatatta | 300 |
| tgcttatccc  | taccctcttc  | tgtttggttc | tggtgtgttc  | tggtactgtc  | ctgtgttaac  | 360 |
| actgcattac  | aataaccatta | aattttgtta | caaggatttt  | gacctgtgtc  | ttgtccctag  | 420 |
| tgcttcatac  | agtgcttttg  | catgtttgtc | tgaccttatt  | atgtttgagt  | agattttggag | 480 |
| gaaggaatga  | atctcttgagc | ttcaggggtt | gtgagttcaa  | aggtttggga  | acatgtcttc  | 540 |
| ctcagtcctt  | aagatgccca  | gatcctttct | ctaaccttat  | ttccctcttc  | atttttgag   | 600 |
| ctttgtgtcc  | ctgggtgatg  | gggaacatta | atgatggaac  | atggcccaat  | tcagtcgatga | 660 |
| acctgaagcg  | ctgggttctt  | tcctgccgga | aagaagggtt  | aggtatgaag  | gaaaccttct  | 720 |
| tataagggat  | tgtaaaagta  | ctggatatgg | gttaataaaa  | ggtaaagaaa  | agtatttggt  | 780 |
| gaataaaata  | aaa         |            |             |             |             | 793 |

<210> 12813  
 <211> 2245  
 <212> DNA  
 <213> Homo sapiens

|             |            |             |            |            |            |      |
|-------------|------------|-------------|------------|------------|------------|------|
| <400> 12813 |            |             |            |            |            |      |
| ctgggattgg  | ctcctgggtg | ccagggaggga | gagtttggcg | gcagatgggt | gcacacaaca | 60   |
| tttagcgcca  | tgcaaaagta | cagaaaagat  | tgccggaagc | gaggctagca | gtcggacctt | 120  |
| gtctccgccc  | cttctctgtg | tggttaccat  | ccagcgtctc | ccgtctccct | ccaccggaag | 180  |
| cgatgggtgg  | ttccgtcagg | cgcttcccg   | accttcccg  | tccctgcttg | caaagtgggt | 240  |
| gtgccccaa   | gtccgctcc  | aggccagctg  | gggtgctggg | gccaagcttt | cccttctctt | 300  |
| gagagaggtt  | tcctgtgtag | gagcagagct  | tcgggctgc  | gtctctctct | gccagtttc  | 360  |
| cgctcaggtg  | tcgctctcc  | gccccacc    | caccagctcc | gctgctattc | cgccggggct | 420  |
| ctagggccca  | tggtctcccg | cgaggagga   | cgtaaggctg | agggcccggt | ggtcgccgta | 480  |
| gccgagaagc  | gagagaagct | ggcgaacggc  | ggggagggaa | tgaggaggag | gaccgttgtt | 540  |
| atcgagcatt  | ggtaggggg  | ctggagagta  | acgggagaga | gggaacagtg | gcgcccgggg | 600  |
| gggcccagg   | ccccggttc  | taacctctcc  | gtctctccct | agcactagct | gacgcgtcta | 660  |
| tgggcgcaac  | ggcgggccc  | tgagccaggc  | gctgcgctg  | gaggccccag | agcttccagt | 720  |
| aaaggtgaac  | ccgcagagc  | ccggaggagg  | cagcttcgag | gtgacgctgc | tgccgccgga | 780  |
| cggcagcagt  | aagtggggag | ctggatgtgg  | gggagaggga | ctgggttgaa | agggaagctg | 840  |
| gttccaaaga  | cagggaagcg | tattcttaga  | aaccacggca | gtctcatgac | ttcagagagc | 900  |
| tgctctgggg  | ttccgaagta | ttgttaactc  | gcttctattc | ggcctttcag | gtcgggagct | 960  |
| ctggacttgg  | attaaagaag | ggccccacg   | cgaactcaaa | ttccctgagc | ctcaagaggt | 1020 |
| gggtggaag   | ttgaagaagt | acctgtcgta  | gggagatttg | ggtagaagcc | ctcatgctga | 1080 |
| gggttgaagt  | tggaagtggg | gggcgcgacc  | gctgttgagg | aagagaaggg | attgatcttg | 1140 |
| gtgtggtcat  | aagtaccac  | ctggcggtgg  | tagctcacgc | ctgcaatccc | agcactctgg | 1200 |
| gaggtgcag   | caggagtggg | tgcccaacac  | aggagagacc | tatttgaaaa | caaaaaacaa | 1260 |
| aaaaaagaca  | caatattgtt | ttctgtctag  | tgtgccctaa | gtggaattta | tgtccttttg | 1320 |
| gagactgtag  | ttgacttgc  | ctgggggtat  | ggacaagttt | tccatttgga | agtttatttc | 1380 |

|             |             |             |            |             |             |      |
|-------------|-------------|-------------|------------|-------------|-------------|------|
| atgttaacttc | atttatgctt  | atccctaccc  | tcttctgttt | gggtcttggt  | tgttctgtta  | 1440 |
| ctgtcctctg  | ttaacactgc  | attacaatac  | cattaaaatt | gggtacaagg  | attttgacct  | 1500 |
| tgtctttgtc  | cctagtgctt  | catacagtgc  | tttggcatgt | tgttctgcac  | ttattatggt  | 1560 |
| gagtgaattt  | tggaggaagg  | atgcaatcct  | tgtagctcag | gggtttgtgag | ttcaagggtt  | 1620 |
| ggggaaacatg | tcttctctcag | tctcttaagat | tgcccagatc | ctttctcttaa | ccttattttcc | 1680 |
| cttctcattt  | ttgcagctttt | tgttccctgg  | tgatgttggg | acatttaatga | tggacaatgg  | 1740 |
| ccaaacttca  | gtcatgatcc  | tgaagccatg  | gtttcttccc | tgccagaaat  | gaaggttcag  | 1800 |
| ttatgagcca  | accctctagt  | aaggcattgt  | aaaagttact | ggatttggtt  | taataaaagt  | 1860 |
| tgaataaaag  | tattttgagta | atagagtaaa  | acttaactct | aagggtatgga | caaaagccag  | 1920 |
| cttctggagat | tgttagtctc  | tgtgtttttt  | atagcccagg | atagccatgt  | gacctggaaac | 1980 |
| ttttaaaaaa  | aaattttttt  | ttaagagcca  | gagtctcact | ttgtcaccca  | tgtctggagt  | 2040 |
| tagtgggtgt  | atctcggttc  | actgcaacca  | tgtctctcca | gggtcaagcg  | atactctctg  | 2100 |
| ctcagctctc  | tgagttagctg | ggatcacagg  | tgacacacc  | cacgcctggc  | taattttttt  | 2160 |
| attttttatt  | ttagtaaaag  | cggtgtttca  | ccatgttggt | caggtctggc  | tcaaaactct  | 2220 |
| gacctcaagt  | gatatgcctg  | ccttgg      |            |             |             | 2245 |

<210> 12814

<211> 2660

<212> DNA

<213> Homo sapiens

<400> 12814

|             |             |            |            |             |             |      |
|-------------|-------------|------------|------------|-------------|-------------|------|
| ctgggattgg  | ctcgcggttg  | ccaggaggga | gagtttggcg | gcagatggtg  | gcacacaaca  | 60   |
| tttagcgcca  | tgcataagta  | cagaaaaagt | tgcgcgaagc | gaggctagca  | gtcgcgacct  | 120  |
| gtctcgcgcc  | cttctctgctg | tgttcacatc | ccagcgtctc | ctgtctccct  | ccaccgcaag  | 180  |
| cgatggcggtg | tctcctcagg  | cgcttccgcg | accttccgcg | ctgtctgctg  | caaaagtgggt | 240  |
| gtgccccaaag | gtccgccttc  | agggcagctg | gggtctcgcg | gccaaagtgt  | ccctctcttt  | 300  |
| gagagaggtt  | tccgctgtat  | gagcagagct | tccgggctgc | gctctctgtt  | gcccgagttc  | 360  |
| cgctcagtg   | tgcgctcttc  | gccccccacc | caccagtccc | gctgcattct  | cgcccggggt  | 420  |
| ctaggcgcca  | tggctccccg  | cgaggagga  | cgtaaggctg | aggccgcggt  | ggctgcgcgt  | 480  |
| gccgagcagg  | gagagaaagt  | ggcgcaacgg | ggggagggaa | tggaggaggc  | gaccgttgtt  | 540  |
| atcgagcatt  | ggtagagggc  | ctggagagta | acgggagaga | gggaacagt   | gcgcgcgggg  | 600  |
| gggcccagg   | ccccggtttc  | taacctctcc | gtctctccct | agcactagct  | gacgcgtcta  | 660  |
| tgggcgcagg  | cgccggtccc  | gtgcccaggg | gctgcgctg  | gaggccacag  | agctttccagt | 720  |
| aaagctgaac  | ccgacgaagc  | cccgaggagg | cagcttcgag | gtgacgcgtg  | tgccgcccga  | 780  |
| cggcagcagc  | aagtggggac  | ctggatgtgg | gggagaggga | cggtgggtga  | agggacgtgg  | 840  |
| gttccgaaga  | caggaaagcg  | tattcttaga | aaccacggca | gtctcatgac  | ttcagagacg  | 900  |
| tgtctctggg  | ttccgaagta  | ttgtaacttc | gcttcattct | ggcctttcag  | gtcggagact  | 960  |
| ctggactggg  | attaagaagg  | ggccccacg  | caaactcaaa | ttccctgagc  | ctcaagaggt  | 1020 |
| gggtggaagg  | ttgaagaagt  | acctgtcgta | gggagatttg | ggtagaagcc  | ctcactcgta  | 1080 |
| gggttgaatt  | gggaagtggt  | gggcgcgacc | gctgttgagg | aagagaaggc  | attgatcttg  | 1140 |
| gtgtggtctc  | aagtaccacc  | ctggcggtgg | tagctcacgc | ctcgcaatccc | agcactctgg  | 1200 |
| gaggtcgagg  | caggagtggg  | tgcccacacg | agggagagcc | tatttgaaa   | caaaaaacaa  | 1260 |
| aaaaaagaca  | caatatttgt  | ttctgtctag | gtgcccctaa | gtggaaattt  | tgtcctttgg  | 1320 |
| gagactgtag  | tgtacttggc  | ctgggggtat | ggacaagttt | tccatttggg  | agtttatctt  | 1380 |
| atgttacttc  | atttatgctt  | atccctaccc | tcttctgttt | gggtcttggt  | tgttctgtta  | 1440 |
| gtgtcctgtc  | ttaacactgc  | attacaatac | cattaaaatt | gtttacaagg  | attttgaact  | 1500 |
| tgtctttgtc  | cctagtgtct  | catacagtgc | tttggcatgt | tgttctgcac  | ttattatggt  | 1560 |
| gagtgagatt  | tggaggaagg  | atgcaatcct | tgtgtgtcag | ggtttggtag  | tccaagggtt  | 1620 |
| ggggaaacatg | tcttctcctc  | tccttaagat | tgcccagatc | ctttctctaa  | ccttattttc  | 1680 |
| cttctcattt  | ttgcagcttt  | gtgtccctgg | tgtatttgga | acattaatga  | tggacaatgg  | 1740 |
| ccaaactctc  | gtcatgatcc  | tgaagccatg | gtttcttccc | tgccagaagt  | gaaggttcag  | 1800 |
| tattgagcca  | accctctagt  | aaggcattgt | aaaagttact | ggattttggt  | taataaaagt  | 1860 |
| tgaataaaag  | tatttgagta  | atagagttaa | acttaactct | aggggatgga  | caaaagccag  | 1920 |
| cttctgggag  | tgttagtctc  | tgtgtttttt | atagcccagg | atagccatgt  | gacctgggaa  | 1980 |
| ttttaaaaaa  | aaattttttt  | ttaagagcca | gagttctact | gtgtcaccca  | tgtcggagta  | 2040 |
| tagtgggtgt  | atctcggttc  | actgcaacca | ttgtctccca | gggttcaagc  | atactctctg  | 2100 |
| ctcagctctc  | ttagtagtctg | ggatcacagg | tgacacacc  | cacgcctggc  | taattttttt  | 2160 |
| attttttatt  | ttagtaaaag  | cggtgtttca | ccatgttggt | caggtctggc  | tcaaaactct  | 2220 |
| gacctcaagt  | gatatgcctg  | ccttgacctc | ccaaagtgtc | gggtttacag  | gcattgatgag | 2280 |



|            |             |            |            |            |            |      |
|------------|-------------|------------|------------|------------|------------|------|
| ccaccgcacc | tggcctgacc  | tgcactttt  | atgatctctg | gtaaaacatg | agaaatactt | 2340 |
| gtaaaaatta | tgggagcaaa  | gtaaaataat | tattttttaa | aaaagcaact | gtatcttttt | 2400 |
| caacttactt | tttgggaagta | atgatggaag | tacatctctt | tggccctctg | agaggtttta | 2460 |
| gctagacttc | ctaatactgg  | cagtgaataa | gccccacgtt | gggtgctgga | cagcatccat | 2520 |
| cactccacc  | cacttagtat  | tccaccaaac | actgcttcac | accttctctt | ggaacatttt | 2580 |
| cttaacaact | acccccacc   | agaggagggt | gtttctttct | agcttttctt | aaattaccag | 2640 |
| tgactggatg | ccttatgacc  |            |            |            |            | 2660 |

&lt;210&gt; 12815

&lt;211&gt; 623

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (95)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 12815

|            |             |             |             |            |             |     |
|------------|-------------|-------------|-------------|------------|-------------|-----|
| caatttttgt | ttctgtctag  | tgtgcccctaa | gtggaaattt  | atgtcttttg | gaagactgta  | 60  |
| gtgtacttgc | cttgggggggt | aggaacaagt  | tttctcattt  | ggaagttaat | ttcatgtact  | 120 |
| tcattttatg | ttatccctac  | cttctctctgt | tgtgttcttg  | ggtgtctctg | aactgtccctg | 180 |
| tgtaaacact | gcattacaat  | accattaaat  | ttggtttacaa | ggattttgac | cttgcttttg  | 240 |
| tcctagtgc  | ttcatcacgt  | gctttggcat  | gttgttctgc  | acttattatg | ttgagtgaga  | 300 |
| tttggaggaa | ggatgcaatc  | cttgagcttc  | agggtttgtg  | agttcaaggg | ttggggaaca  | 360 |
| tgcttctctc | agtccttaag  | attgcccaga  | tccttctctt  | aacctattt  | ccctctctat  | 420 |
| ttttgcagct | ttgtgtccct  | ggtgatgttg  | gaacattaat  | gatggaacat | ggccaaactt  | 480 |
| cagtcatgat | cctgaagcca  | tggtttcttc  | cctgccagaa  | atgaaggttc | agttatgagg  | 540 |
| caaccctcta | gtaaggcatt  | gtaaaagtta  | ctggattttg  | tttaataaaa | gttgaataaa  | 600 |
| agtatattag | taatagagta  | aaa         |             |            |             | 623 |

&lt;210&gt; 12816

&lt;211&gt; 2297

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 12816

|            |            |             |             |             |            |      |
|------------|------------|-------------|-------------|-------------|------------|------|
| ggacaagagg | gtcacttgga | ttgtggagtt  | ctttgccaat  | tggtctaatt  | actgccaatc | 60   |
| atttgccctt | atctatgtct | acctctccct  | taagttagta  | gtgcaaaagg  | agggatgggt | 120  |
| gaaatggaga | tgctgtgctt | tcctctctac  | ttttcttttg  | ttttcttttt  | cttttggcct | 180  |
| tgattttcac | acatggtaac | caaaaggcat  | tcctctctcc  | ctcttaataa  | tcctactctc | 240  |
| cacttttctt | gatccattat | tttttttcag  | catattaaat  | aataatctct  | tttcagatac | 300  |
| aactgtacag | ggctaaattt | tgggaagggt  | gatgtttgac  | gctatactga  | tggttagtac | 360  |
| cggtatgtaa | agacctgggc | agagggctct  | agcagggaag  | tcactttgag  | tgatacacat | 420  |
| agggacattt | agagaaactt | ctggggccctg | cagggtacaaa | gtgagcacat  | cacccctcac | 480  |
| caagcaactc | ctaccctga  | tcctgttcca  | aggtggcaag  | gaggcaatgc  | ggcgggcaca | 540  |
| gattgacaag | aaaggacggg | ctgtctcatg  | gaccttctct  | gaggtacctg  | aaaggaaggg | 600  |
| cagggtcatg | aggggtgcag | aacagtaggt  | gggctttcaa  | gccctaccgc  | ggtttgatc  | 660  |
| acagctctgc | cacttgccca | ttagctttga  | gggtgtggac  | tagttactag  | acctcatggt | 720  |
| ttaattcatt | tagcaaatat | atattatgtg  | cagacctgct  | agtagctggg  | aacaatcatt | 780  |
| agttaagatt | tggtctcagg | ccaggcacgg  | tggtctacgc  | ctgtaattcc  | agcactttgg | 840  |
| gaggccgagg | ctggcagatc | acctgaggtc  | aggagtttga  | gaccagcctg  | accaacatgg | 900  |
| agaaaccccg | tgctactcaa | aaatacaaaa  | atagccgagt  | gtggtggcgc  | atgcataata | 960  |
| tgccagctat | ttgggaggct | gaggcaggag  | aatcacttga  | acccggggag  | tgagggttgc | 1020 |
| agtgactga  | gattgacca  | ttgcggtcca  | gcctgggcaa  | caagagactc  | catcaggaaa | 1080 |
| aaaaaataaa | gattctgtct | cgaaggccat  | tgccctctatg | gtctgttaggt | tttaggtccc | 1140 |
| ctgtctagta | ttggggggga | ataacccggg  | gcttacaggc  | gtttttgcag  | attacattaa | 1200 |
| ataatttagg | tataattctt | ggcacgggtg  | ttggcacata  | atgggtattt  | aactattagt | 1260 |
| tgacttttct | gggtacctaa | aaaagaggaa  | gggtagggaa  | gattttttgc  | ctttgcttac | 1320 |

|             |             |            |             |            |             |      |
|-------------|-------------|------------|-------------|------------|-------------|------|
| tccttcccttt | cccagacttt  | gtgtaaaata | ctcttacttt  | cccaggtctt | ttactctccc  | 1380 |
| ttccaaccca  | gacccctgag  | tgtgcatctc | ttttgtgcag  | gagaatgtga | tcgcgagaatt | 1440 |
| taacttaaat  | gagctatacc  | agcggggcaa | gaaactatca  | aaggctggag | acaatatccc  | 1500 |
| tgaggagagc  | ctgtgtgctt  | caacccccac | cacagtgtca  | gatggggaaa | acaagaagga  | 1560 |
| taataaagat  | cttcactttg  | gcagtgtctc | ctctcctgtc  | aattccaggc | tctttccata  | 1620 |
| accacaagcc  | tgaggctgca  | gccttttatt | tatgttttcc  | ctttggctgt | gactgggtgg  | 1680 |
| ggcagcatgc  | agctttctgat | tttaagagg  | catctaggga  | attgtcaggc | accctacagg  | 1740 |
| aaggcctgcc  | atgctgtggc  | caactgtttc | actggagcaa  | gaaagagatc | tcataaggagc | 1800 |
| gagggggaaa  | tggtttccct  | ccaagcttgg | gtcagtggtt  | taactgctta | tcagctattc  | 1860 |
| agacactctc  | atggtttctc  | catgaaactc | tgtggtttca  | tcattccttc | ttagttgacc  | 1920 |
| tgcacagctt  | ggttagacct  | agatttaacc | ctaaggttaag | atgctggggg | atagaacgct  | 1980 |
| aagaattttc  | ccccaaagac  | tcttgcttcc | ttaaagccctt | ctggcttcgt | ttatggtctt  | 2040 |
| cattaaaagt  | ataagcctaa  | ctttgtcgct | agtcctaagg  | agaaaccttt | aaccacaaaag | 2100 |
| tttttatcat  | tgaagacaat  | attgaacaac | ccccattttt  | gtggggattg | agaaggggtg  | 2160 |
| aatagaggct  | tgagactttc  | ctttgtgtgg | taggacttgg  | aggagaaatc | ccctggactt  | 2220 |
| tcactaaccc  | tctgacatac  | tcccacaccc | cagttgatgt  | ctttccgtaa | taaaaagatt  | 2280 |
| gggatttcct  | ttgatt      |            |             |            |             | 2297 |

<210> 12817  
 <211> 397  
 <212> DNA  
 <213> Homo sapiens

|             |             |             |            |            |            |     |
|-------------|-------------|-------------|------------|------------|------------|-----|
| <400> 12817 |             |             |            |            |            |     |
| ctcccacctg  | tctttccacg  | accagatggg  | tttgggggtg | tctgcagagg | actagctctg | 60  |
| ctcgtgtttg  | gcttggcttc  | tggtgtttct  | ttattacact | cctctgccgc | caaagacgcc | 120 |
| ggccagggtg  | tgccaggcact | gagctagatc  | catctaaaat | gctgggaagg | tttgatgtac | 180 |
| agataccagg  | agatgtcctt  | gagcgactga  | gcctgatctt | tctgggcaac | aggtgtttgt | 240 |
| ccacagaggg  | gtacaagctt  | gggtggggaga | gactgttagg | atcaagggca | gtgtcattct | 300 |
| tgttctctct  | aggctcttga  | ctatggcttg  | tgcttgaaga | gtttttttct | tgtggaggtg | 360 |
| ggcaggctct  | ggccttctct  | ttgagcagaa  | gagtgcc    |            |            | 397 |

<210> 12818  
 <211> 398  
 <212> DNA  
 <213> Homo sapiens

|             |             |            |             |            |            |     |
|-------------|-------------|------------|-------------|------------|------------|-----|
| <400> 12818 |             |            |             |            |            |     |
| ctcccacctg  | tctttccacg  | accagatggg | tttgggggtg  | tctgcagagg | actagctctg | 60  |
| ctcgtgtttg  | gcttggcttc  | tggtgtttct | ttattacac   | tctctgccgc | caaagacgcc | 120 |
| cgccagggtg  | ttgcaggcact | tgagctagat | ccacttaaaa  | tgctgggaag | ctttgatgtg | 180 |
| agataccagg  | agatgtcctt  | tgagcgactg | agccttagct  | ttctggggca | caggtgtttg | 240 |
| tcacagaggg  | ggtaacaagt  | gggtggggag | agcactgtag  | gatcaagggc | agtgctattc | 300 |
| tgttctctct  | taggtctctg  | actatggctt | gatgggtgaag | agtttttttc | ttgtggagtt | 360 |
| ggcagggtct  | tggtcttctt  | cttgagcaga | agatggcc    |            |            | 398 |

<210> 12819  
 <211> 3369  
 <212> DNA  
 <213> Homo sapiens

|             |            |             |            |            |            |     |
|-------------|------------|-------------|------------|------------|------------|-----|
| <400> 12819 |            |             |            |            |            |     |
| gagagaagtg  | gagatcctga | tggtttctcag | tgccattgtg | atgatgaaga | accgcagatc | 60  |
| cagtaagtgt  | agttcacttc | tcagactcaa  | ggttagatct | aatgcccttt | ggagggtgct | 120 |
| tgcttcattg  | taagagagtg | gcaatcattt  | ggtaaaattg | tcttacgttt | aattccaagg | 180 |
| ctgaatttga  | acttggactt | ctatcccttc  | cctgtctctt | atttcaaaat | gccccatgaa | 240 |
| gagggaacaa  | gaatgggata | taggagtgca  | cagccacgcc | tgacctgtga | catctctgtg | 300 |
| tttcagtcac  | tgtggagcaa | catataggca  | acattttcat | gtttagttaa | gtggccaaca | 360 |

|             |             |             |             |             |             |      |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| caattctttt  | cttcgcgttg  | gatattcgca  | tgggcctact  | ttacatcaca  | ctctgcatag  | 420  |
| gtggaggagc  | tgccttttct  | tcgttttttt  | tttttgttaag | actgtgttga  | tagacttgat  | 480  |
| tgtggaacac  | acagtcacca  | cattgtgcaat | ccccaaacgt  | ttttccatac  | ccctctctcc  | 540  |
| atactctaga  | ccctaataat  | tatatattga  | gctcagatga  | taaacagttt  | cacagagctgt | 600  |
| tatttgtata  | gtagggaatg  | tgttggtgtg  | tcacatatat  | ccacaagtggt | gtattatttg  | 660  |
| ggggctgtgc  | tactctgggtt | gggtttggga  | taaatctccct | gtgtgaaggt  | ttctattgtt  | 720  |
| ctcttcgacat | ctctctctct  | tatttagtgt  | ctctgtagac  | gtgcacaacc  | ccccatata   | 780  |
| tgggcccgtga | gtatatcaac  | tacttcaatg  | ataaaaccat  | tgatgttcat  | gctctttccc  | 840  |
| ctttctgttt  | ctctgggttc  | tgttggtgtg  | ttttgtagtt  | gtgctctgta  | ttcactagga  | 900  |
| ggaacacacag | tgtctcaaaa  | tggatgtcac  | gggcaactgt  | gttcattatg  | agagccgggg  | 960  |
| gagagggaac  | acaggatga   | ggaattagat  | gtcaagtctg  | gaacctctcc  | aggaggtcat  | 1020 |
| gtgtgatccg  | ctgacttttc  | ttccctgtat  | tgcaggagag  | gaactagaac  | gggacaagag  | 1080 |
| gggtcaacttg | atgtgtgaat  | tttttgcoaa  | tgtgcttaat  | gagtgccaat  | ttgtctgcc   | 1140 |
| tctatctagt  | gacctctccc  | ttaagttagt  | agtgcaaaag  | gaggttaggt  | ggaaatggag  | 1200 |
| atgctgtgcc  | ttccctctca  | ctgttttttg  | ctctcttttt  | tcctttggcc  | ttgatattca  | 1260 |
| ccatggttaa  | ccaaagtcac  | ctccctctcc  | ctctttaaat  | atctatactt  | ccaacttctc  | 1320 |
| tgtactcata  | ttttttttca  | gcataataa   | taatatattc  | ttttcagata  | caactgtaca  | 1380 |
| gggtcaattt  | ttgggaaggt  | gcgaatgtgc  | cgctatactg  | atgttagtag  | cggttagtga  | 1440 |
| aagacactgg  | cadagggctg  | gagcagcatg  | atcactttga  | gtcattcata  | cagggacatt  | 1500 |
| tagagaaact  | tctgggctct  | gcaggtacaa  | agbtgagaca  | tgacacocaa  | ccaaagaaact | 1560 |
| ccctaccctg  | atctctgtcc  | aaggtggcaa  | ggagggcaat  | cgggcgccac  | agattgacaa  | 1620 |
| gaaggagcgg  | gcgtctctat  | ggacctcttc  | tgaggtacct  | gaaggaggaac | cgaggtgcat  | 1680 |
| gaaggttgca  | gacacgtagg  | tggggtcttc  | agccctaccc  | gggttgtatt  | cacagctctg  | 1740 |
| ccactctgcc  | atattgcttg  | agggtgtgga  | ctagtacta   | gacctctagt  | tttaactatt  | 1800 |
| ttagacaata  | tatatattgt  | gcagacactg  | tagtctggg   | taaacatact  | tagttaagat  | 1860 |
| tgtgtctcag  | gcaggcagcc  | gtggctcagc  | ctcgtaatcc  | cagcactctg  | ggaggccgag  | 1920 |
| gtgtgcagat  | ccactgaggt  | caggagttgt  | agacacacct  | gaccacaaag  | gagaaacccc  | 1980 |
| gtgtctacta  | aaaaatacaa  | aatagccgag  | tgtgtggcgc  | catgcctata  | atgccagcta  | 2040 |
| ttttggagag  | tggcgaggga  | gaatcgctc   | aaccgggagc  | gtggaggttg  | cahtgagctg  | 2100 |
| agattgcctc  | atgtcggtcc  | agcctggcca  | acaagagact  | catcagggga  | aaaaaaaata  | 2160 |
| agattctgcc  | tgaagaagcca | ctgcacctat  | tgtcttaggg  | tgttaggttc  | ctctgcagtt  | 2220 |
| aattggaggt  | aataaacctc  | ggcttacagg  | gtgtttttgc  | agattacatt  | aaataatttt  | 2280 |
| gggtataatc  | ttggcaggtg  | catgtggcaca | taatgggtat  | tttaactata  | gttgactatt  | 2340 |
| ctgtggtcat  | aaaaaagag   | aaggttaggg  | aagatttttg  | tcctttgctt  | actccttctc  | 2400 |
| ttcccagact  | ttgtgtaaaa  | tacctcttat  | ttcccagact  | cttctaactc  | ctctccaacc  | 2460 |
| cagatcctga  | cgtgtgcata  | tcttttttgc  | aggagaatagt | gattccagaa  | tttaacttaa  | 2520 |
| atgacgtata  | ccagcggggc  | aagaaactat  | caaaaggtct  | agacaatact  | ctcgaggagc  | 2580 |
| agcctgtggc  | ttcaaccccc  | accacagact  | cagatggggg  | agaacaaag   | gataaataag  | 2640 |
| atcctcaact  | tggcagtgct  | tcctctcctg  | tcaattccag  | gctctttcca  | taaccacaga  | 2700 |
| ctcgaggtgct | cagcctttct  | tttatgtttt  | ccctctggct  | gtgactgggt  | ggggcagcat  | 2760 |
| gcagctttct  | ttttaaagga  | ggcatctagg  | gaattgtcac  | gcaacctaca  | ggaaggctct  | 2820 |
| catctgctgt  | ggcaactgtg  | tactcgtggg  | aagaaagaga  | ttctatagga  | cgggagggga  | 2880 |
| aatggttttc  | ctccaagctt  | gggtcagttg  | gttaactcgt  | tctagctatt  | ctcagactat  | 2940 |
| ccatgttttc  | tccatgaaac  | cttgtgtgtt  | ctatctctct  | tatagttga   | ctgcacacg   | 3000 |
| ttgtgtagac  | ctagattttaa | ccctaaggtt  | agatgctggg  | gtatagaacg  | ctaagaattt  | 3060 |
| teccccaaag  | actcttgcct  | ccttaagccc  | ttctggcttc  | gtttattgtc  | ttctataaaa  | 3120 |
| gtataagcct  | aactttgtgc  | ctagtcttaa  | ggagaacact  | tttaaccaca  | agttttatct  | 3180 |
| attgaagaca  | atatgtgaac  | acccctactt  | tttgtgggag  | tgaagaagag  | tgaattagag  | 3240 |
| cttgagactc  | tcctttgtgt  | gttaggactt  | ggaggagaaa  | tcctcctgac  | tttcaactaa  | 3300 |
| cctctgacat  | actccccaca  | cccagttgat  | ggctttccgt  | aataaaaaag  | ttgggattgt  | 3360 |
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<211> 3369
<212> DNA
<213> Homo sapiens
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|             |              |             |            |             |             |      |
|-------------|--------------|-------------|------------|-------------|-------------|------|
| tgcttcatgt  | taagagagtg   | gcaatcattt  | ggtaaatttg | tcctacgttt  | aattccaagg  | 180  |
| ctgaatttga  | acttgggact   | ctatcccctc  | cctgtctcct | atttcaaatg  | gccccatgaa  | 240  |
| gagggacaaa  | gaatgggata   | taggagtgca  | cagcccagcc | tgacctgtga  | catctctgtg  | 300  |
| tttcagttac  | gtggagacaa   | catataggca  | acattttcat | gtttagttaa  | gtggcccaaca | 360  |
| caattctttt  | gtcccgcttg   | gatattcgca  | tggggctact | ttacatcaca  | ctctgcatag  | 420  |
| gtgaggagac  | tgccctttct   | tccttttttt  | tttttgtaa  | actgtgttga  | tgactttgat  | 480  |
| tgttgaaacc  | acagtcccaa   | cagttgcaat  | cccaacatg  | ttctccata   | ccctctcttc  | 540  |
| atctctcata  | ctcaatgaat   | tatatatgta  | gctcagatga | taacagttta  | cagagatggt  | 600  |
| tattgttagag | gtagggaagt   | gtttggtggt  | ctacatatat | ccacaagtg   | gtattatttg  | 660  |
| ggggctgaaa  | tccttgggtt   | ggtttggaag  | taaatccct  | gtgtaaggct  | ttttatgttt  | 720  |
| cccttcgacat | ctctcttctg   | tatttagtgt  | tcctgatgac | gtgcaaacc   | cccttatata  | 780  |
| tggggccctga | gtatatcaag   | tacttcaatg  | ataaaaccat | tgatgtgagt  | gctctttccc  | 840  |
| ctttctgttt  | cttgggtccc   | ttgtgggtga  | ttttgtagt  | gtgctctcca  | ttcactagga  | 900  |
| ggaacaacag  | tgcttcaaaa   | tggatgtcac  | gggcactgtg | gttcattatg  | agagccgggg  | 960  |
| gagagggaac  | accaggatga   | ggaattagat  | gctaaagtct | gaacctccc   | aggaggctat  | 1020 |
| gtgagtccag  | ctgacttttc   | ttccctgtat  | ttggcaggag | gaactagaac  | gggacaagag  | 1080 |
| gggtcctgg   | attgtgtgag   | ttcttgccaa  | ttggtcta   | gaactgcaat  | catttgcctc  | 1140 |
| tatctatgtc  | gaacctctcc   | taaagttagt  | agtgcaaa   | gagggatggt  | ggaaattggag | 1200 |
| atgctgtgoc  | ttccctctca   | ctgtttttgg  | ctttctttt  | tcctttggcc  | ttttatgtta  | 1260 |
| cacatggtaa  | ccaaaggcat   | ctccctctcc  | ctcttaaat  | atctatactt  | ccactttctc  | 1320 |
| tgatccatta  | ttttttttca   | gcataataa   | taataattc  | tttccagata  | caactgtaca  | 1380 |
| gggtcaaat   | ttgggaaggt   | ggatgttggg  | gcctatactg | atgttagtac  | gcgggtatga  | 1440 |
| aagacatggg  | cagagggtct   | gagcagggaa  | atcactttga | gtgatacata  | caggggacatt | 1500 |
| tagagaaatt  | cttggggctc   | gcaggtacaa  | agttagcaca | tcacccctca  | ccaagcaact  | 1560 |
| ccctaccctg  | atcctgttcc   | aaggtggcaa  | ggaggcaatg | cgccggccac  | agattgacaa  | 1620 |
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| gaaggttgca  | gaacagtagg   | tgggctttca  | agccctaccc | gggtttgat   | cacagctctg  | 1740 |
| ccacttgccc  | attagctttg   | aggggttgga  | ctagttaata | gacctcatgt  | tttaattcat  | 1800 |
| ttagcaaat   | tatatattgt   | gcagacctgc  | tagtactggg | taacaatcat  | tagttaagat  | 1860 |
| ttggtctcag  | gccaggcagc   | gtggctcacg  | cctgtaatcc | cagcaacttg  | ggagggccag  | 1920 |
| gctggcagat  | caactgaggt   | caggagtttg  | agaccagcct | gaccaacatg  | gagaaacccc  | 1980 |
| gtgtctacta  | aaaatacaaa   | aatagccgag  | tgtgtgggg  | catgcctata  | atgcagcata  | 2040 |
| tttgggagct  | tgaggcagga   | gaatcgcttg  | aaccggggag | gtggagggtg  | cagtgcagctg | 2100 |
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| aattggaggt  | ataaacctct   | ggcttacagg  | gttgttttgc | agattacatt  | aaataatttt  | 2280 |
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| ctgggtacct  | aaaaaagagg   | aaggttaggg  | aagatttttg | tcctttgtct  | actccttctc  | 2400 |
| ttcccagact  | tttgtgtaaa   | tacctttac   | ttcccaggct | ctttactctc  | ctctccaacc  | 2460 |
| cagatctctg  | cgtgtgcatt   | tccttttgtc  | aggagaatgt | gatccgagaa  | tttaacttaa  | 2520 |
| atgagctata  | ccagccgggccc | aagaaaactat | caaaggctgg | agacaataatc | cctgaggagc  | 2580 |
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| ttggttagac  | ctagatttaa   | ccctaagtta  | agatgctggg | gtatagaagc  | ctaagaattt  | 3060 |
| tcctcccaag  | actctgtgct   | ccctaagccc  | ttctggcttc | gtttatggct  | ttcattaaaa  | 3120 |
| gtataagctc  | aactttgtcg   | ctagtcttaa  | ggagaaacct | tttaaccacaa | agttttttatc | 3180 |
| attgaagaca  | atattgaaaca  | acccccattt  | ttgtggggat | tgagaagggg  | tgaatagagg  | 3240 |
| cttgagactt  | tccttttgtg   | ggtaggactt  | ggagagaaaa | tcctctggac  | tttctaactac | 3300 |
| cctctgacat  | actccccaca   | ccagtttgat  | ggtcttccgt | aataaaaaa   | ttgggatttcc | 3360 |
| cttttgtatt  |              |             |            |             |             | 3369 |

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 <212> DNA  
 <213> Homo sapiens

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 ttcttaatac tggcagtgaa taagccccac gttgggtgct ggacagcctc catcactccc 180  
 accactctag tattccaccc aacactgctt cacaccttcc tctggaaacat ttctttaaac 240  
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 <211> 398  
 <212> DNA  
 <213> Homo sapiens

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 cggccagggg ttgcaggcac tgagctagat ccaactaaaa tgcctggatga cttgtgtgta 180  
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 tccacagagg ggtacaagct ggggtggggag agcactgtag gatcaagggc agtgcattc 300  
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<210> 12823  
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 <212> DNA  
 <213> Homo sapiens

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 aatttaggta taattcttgg cagggtgatt ggcacataat ggggtatttaa ctatttagtg 180  
 acttttctgg gtacctaaaa aagagggaagg ttagggaaga ttttctgctc ttgttactc 240  
 cttcttttcc cagaactttg gtaaaatacc tcttacttcc caggctcttt actctccctt 300  
 ccaaccacga tctgcagctg tgcactctct ttgtgcagga gaatgtgac cgagaattta 360  
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 ggagcagctc gtgggttcaa cccccaccac agtgtcagat ggggaaaaa agaaggataa 480  
 ataagatctc cactttggca gtgcttctc tctgtcaat tccaggctct tccataacc 540  
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 ttatcattga agacaatatt gaacaacccc ctatttttgg gggattgaga aggggtgaat 1080  
 agagcctctg gactttctct ttgtgtgtag gacttggagg agaaatcccc tggactttca 1140  
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<210> 12824  
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 <212> DNA  
 <213> Homo sapiens

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|             |             |             |             |             |             |      |
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| gccctgcctg  | gcagagagcc  | gggctgctcg  | tgagaaagag  | agcttcaacc  | tcaagaggcc  | 120  |
| tcaggtgtgt  | gcaggggtga  | ggggccaggg  | caggggtggtc | cacggtcacg  | gacctatcct  | 180  |
| gggggcaagc  | ggctcaaggt  | tgaggaccct  | tgcccttagc  | caggccctct  | ctgccccagg  | 240  |
| aggacatctc  | acggcttggg  | cgcaagctgg  | aaaagcagag  | gaaggtggag  | gtctacgcag  | 300  |
| atgccagcga  | aaacctccag  | gaggagatca  | aggagtacaa  | gggtggggctg | tggggcaagt  | 360  |
| ttgtgccctat | ccacctgaga  | attgtagatg  | caggattgct  | gagactagtT  | gagagtctgg  | 420  |
| ggacctctgga | tgtaaatgtag | ggcagcagaa  | agtgggcagc  | acagtggtca  | cagagtcaaa  | 480  |
| tgctgttttg  | tgtacatgta  | ctgtgagcca  | ggcacagtgc  | ttggctgggt  | tgaggcttggg | 540  |
| aggctaggaa  | ctggccctgg  | ttctctgactt | cttgaacctg  | acagtcaggg  | gaggaggcag  | 600  |
| ccaagtaatt  | ctctcatccc  | agatgtgtaa  | tatgatggca  | gaggccagag  | gggtcgaggg  | 660  |
| gactcagggg  | aggcccttcc  | cttggtccctg | gggtcagcag  | gcttccttga  | gtgaattgtca | 720  |
| ccacagcaga  | cctgaagaat  | aggccagacg  | tggtctgtgag | gaacggggat  | gagtagcttt  | 780  |
| aggcaaaagg  | aacagcagat  | gtggacgctt  | gagcggaggg  | gttgctggga  | cagccaccga  | 840  |
| gggttgtaatc | agaggagcca  | atgtggagag  | gttgggcccgt | gtccccctcc  | tgaagagtgc  | 900  |
| ggtaacggag  | gttgagacct  | caaaagggttt | taaacaggag  | agtgatgtgg  | ttagatttgt  | 960  |
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| cactgagcag  | ccccccacag  | tagatgggtt  | caggagacat  | tcagaggcag  | aattgctctgg | 1080 |
| actcgggggt  | ggatcgaatg  | catbgagtg   | gggaaagggg  | acacttgtag  | gactccttgt  | 1140 |
| ttctcgtgtt  | gagaaactag  | gtggatagtt  | agttaccatt  | aggggggtag  | gaggcttcgcg | 1200 |
| ggggagcagg  | ttctatggga  | tggtgtcaaa  | ggatgctgag  | aaggtgcctg  | tgggaccctct | 1260 |
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| tgtagcagtag | ggcagaggtg  | gaagccacat  | atgacttggt  | catcccttgg  | aagcagttga  | 1380 |
| gccttgaagg  | gcagagcgag  | ctggaggcag  | ccatgggggt  | gaggcaggct  | tggggagcctg | 1440 |
| ttcagtgctg  | gtgtgtgagg  | tcctgggaga  | caggagttag  | gcaggaggag  | gtctgagagc  | 1500 |
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| atcactgccc  | agtgatgaat  | ccggactctg  | ctgatttcta  | gtgttagagac | cttgccctct  | 1920 |
| gcacctcagt  | ttgtctatct  | atagagtgtc  | cgctcctacc  | tccagggtta  | tgggaggagt  | 1980 |
| aggtgcagtc  | tccagtgtgg  | tggtcttggc  | gtggaactct  | cctgctgtca  | gcttgggggtc | 2040 |
| tgggcagctg  | cagagtttgt  | cccaagctga  | tgcttctgcc  | tgggccaggc  | gcgggtgacc  | 2100 |
| gtgccctcgt  | gcgtgcgggg  | caagaaggat  | gcagtcctta  | ccaagtctt   | ccacgttttc  | 2160 |
| tgcttctgagt | gcgtgcgggg  | ccgctatgag  | gcccgccaga  | ggaagtgcc   | caagtgcac   | 2220 |
| gcggcctttg  | gtgccaccga  | cttccatcgt  | atctacatca  | ctgcaacctg  | aaactcaggg  | 2280 |
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| cgctccctgc  | ctaacgtgctc | acaaatgagg  | accagttagc  | catgtctctg  | ttcctgtgtt  | 2700 |
| gagactgggc  | tgcagcggcc  | aggaaagact  | tccttcaacc  | accatcccc   | taacctcgcc  | 2760 |
| aggcctcttg  | ttcctgtgag  | ttccctggac  | acctgtgtgt  | ggctctgtgt  | ccaagggatg  | 2820 |
| aaggaggtag  | ccttttggca  | gatgggggca  | tcacttgctt  | cctttgggaa  | gctttaaagt  | 2880 |
| tgctgcagtc  | accttctctca | ttcttcagggt | gcctgaacca  | acatcatcag  | tttctattct  | 2940 |
| aatcaggccc  | cttcccactc  | ttcatttctc  | tgccaaagcc  | atttaccccc  | acctaatgca  | 3000 |
| ttcccaaggt  | ctactgggtc  | ccctggacct  | acctgtgttt  | catcctgggt  | gctttaaacta | 3060 |
| cagtggaggt  | ggaacttccc  | aggaggggaa  | gggacagacc  | agccccagcc  | gctggggcaa  | 3120 |
| cttccaatca  | ttccagctag  | aaagagcttc  | ccctgacacc  | ctgtgactga  | gcttgtgtcc  | 3180 |
| tgctgcctgt  | cccagccatg  | ctccactggc  | gtgagggcca  | gtgccccggg  | aggccagagg  | 3240 |
| gttggagctg  | cagggacccg  | tttggaccaca | cagcctctgt  | tcagagagat  | cttgtatagg  | 3300 |
| ctgttaattg  | tgatgaataa  | acgttcaacc  | ctggcctctg  | agccagagta  | gcaggccggc  | 3360 |
| gcacccccaa  |             |             |             |             |             | 3370 |

<210> 12825  
<211> 789  
<212> DNA

<213> Homo sapiens

<400> 12825

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| tcgaatgcac  | agatcgggac  | acctcagctg  | ggtgacttcc | ctcggtgcaa | tcggcctcgg | 120 |
| gagcggtgcg  | cgctgtaccg  | agcggcgccc  | ctgggctcag | cgcgtgcag  | gcgcccgggg | 180 |
| cggtactcct  | accgagcgag  | gactggggct  | ggcgccagag | ccggtgcgga | gcggtgttgg | 240 |
| ttcagggcgt  | ggcgacagtg  | ctatggccac  | ggcagggggc | cgctgcgtct | cagcgggtgc | 300 |
| gccttcggac  | cctattggcg  | cccgggactt  | aagcggggcc | gccgctgctg | gaccaggagc | 360 |
| aaactggagaa | ggagacgcgg  | gcgcgcacgg  | tgacctcggg | cgtaggcgcg | cgcgcgccgg | 420 |
| gcacgctggg  | ggaagcgcg   | gccgcggcag  | gggaggacat | cgggcgccag | agaaagtgc  | 480 |
| gatggcctgg  | ggcagcggtg  | cgagggtggg  | aaaaacgcag | gatattgcat | catagagagc | 540 |
| cgggccactt  | cgccctggga  | gagcgccagt  | ctcaggagcg | cgccaccggt | cacgggtgga | 600 |
| gggtcagccag | gcctccgtaa  | gcgcgggtccc | cttcaggagc | tagccttcgc | ctgggctctt | 660 |
| gagtagatgc  | caagtaattc  | cgcctcgtct  | ctctagatat | ctgcgctaaa | ggccaccggg | 720 |
| tctctttatc  | agagggggcaa | aactctcctc  | gtgggtcttc | atacctaata | aaagtgcgga | 780 |
| tcaaacacc   |             |             |            |            |            | 789 |

<210> 12826

<211> 157

<212> DNA

<213> Homo sapiens

<400> 12826

|            |            |            |            |            |             |     |
|------------|------------|------------|------------|------------|-------------|-----|
| tcctgaggtc | aggagatcta | gaccatcctg | gctaacacgg | tgaacccca  | tctctactaa  | 60  |
| aaatcacaaa | aatttagctg | gtgtggtggt | ggggccctat | agtcccagct | actcggggagg | 120 |
| ctgaggcagg | agaatgggtg | gaaccaggga | gtcggag    |            |             | 157 |

<210> 12827

<211> 4687

<212> DNA

<213> Homo sapiens

<400> 12827

|             |             |             |             |             |             |      |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| gcggcgtaga  | tattggcgctc | tctttgcttg  | cgggcgagcg  | attggtgcgt  | gctttggggc  | 60   |
| cgggcgggga  | gctggagcca  | gagcggctac  | cccgaaagct  | gcgggcccag  | cttgaggccg  | 120  |
| cgctggggga  | gaagcacaa   | ggcggtgata  | gctccagtgg  | cccccaacgc  | ttggtttctt  | 180  |
| tcggttccat  | ccgggatctg  | caccagcatc  | tgagagaaa   | gggtgagccc  | cagtctccag  | 240  |
| tcgggggtcc  | octccttggt  | tccagatcga  | ttccctcctg  | aggttctttc  | ccatcatctc  | 300  |
| ctcttctcta  | cggagcactc  | atctagacaa  | gtcgaagatc  | actccataaa  | ccccagggcc  | 360  |
| accacacttt  | ttaactccca  | tgggaatttc  | tcgtggatga  | caadtcttgc  | tgtagcattt  | 420  |
| ctgctctttt  | gagagccccc  | tcttcaactc  | caggcacacc  | taggcaccaat | tcacccttga  | 480  |
| gaaagtctag  | gtttttacca  | aatacaaata  | tcacaggttt  | tgtctcttct  | ttttctccac  | 540  |
| tttaggaatc  | agcttagcat  | agtgaagctg  | taggaaatcg  | gatttcttct  | caacctcaaaa | 600  |
| gcaagagtgt  | tgaatctgga  | tactttgttt  | tgtttgtttg  | tttttttaat  | ataggtatggc | 660  |
| aaaagctgtg  | ttgaaagatc  | tgcccttgaga | gtagcatgtg  | agttccagtc  | ctagctctgt  | 720  |
| cactaatcct  | ttgaaaggat  | catttctcct  | cgctgggcct  | cagtttccct  | atgtgtaaa   | 780  |
| ggaaggaaca  | ggacaaacta  | gcacataagg  | tattttgcca  | gaagtaacat  | agacacagcca | 840  |
| gaagtgcaaa  | gggtgactg   | ctcaattatt  | agaactagaa  | aggaccttag  | aaagagattg  | 900  |
| ctcagtagta  | gtgtccctctg | agcatttagc  | atcactatga  | cctaaactta  | tttagggga   | 960  |
| agctgtgttg  | gccacagaac  | tgatctaacc  | caaaaggcaca | agtaaatggc  | ttaacttgtta | 1020 |
| gttataaacac | tggcaggata  | attgagagct  | gacagctaaa  | gtccacctg   | cagcactggg  | 1080 |
| agatcacac   | atggaatatt  | ccaaaatttc  | tttcaattga  | aaatgatcct  | ggaaatggat  | 1140 |
| taagtgttag  | atggccctgt  | ttattttgtg  | tagaagaag   | ggctacaccc  | ctcttgatct  | 1200 |
| taacccttca  | acctcagctc  | gtggatcaat  | gtgtttgtga  | atcttccagt  | cttcagatct  | 1260 |
| caaacatctc  | ctccatgagc  | tcctagaagg  | cagtgaatc   | tatctccagc  | aggtttgtgaa | 1320 |
| gcctccacgg  | gtatgttaagg | gatatgtttg  | tgagatgggt  | tattgactga  | gttgggctta  | 1380 |
| tcctatgatac | actgaactta  | taaatcaact  | tttaggcttg  | aaaaattggt  | tttgaatatc  | 1440 |
| ttgggatctg  | ggggagccag  | atattgtcct  | ccccatcagc  | tgtttggaaa  | attgagatca  | 1500 |

|             |             |             |             |             |              |      |
|-------------|-------------|-------------|-------------|-------------|--------------|------|
| aaaaaaaa    | aaacagtttc  | aaagcactgg  | agttacgact  | agttatgtggg | tctcctgata   | 1560 |
| cccttagcag  | tgctttacc   | ctggaaccaa  | tgattgtgat  | gtgctttcta  | acaagctggg   | 1620 |
| aatatcattc  | ttctcatttg  | atttttctgc  | ttcagaaccc  | agaactagtt  | gcccggctgg   | 1680 |
| agaagattaa  | gatacagctg  | gccaatgagg  | aatataaacg  | gatcacccgc  | aacgtcactt   | 1740 |
| gtcaggttaa  | gacatgctct  | tcagtagctg  | gtctaggtag  | ccccctcag   | tagggccctg   | 1800 |
| cagtggagag  | agatacagag  | tttagaaaaa  | acatggaaac  | ttgttttcta  | tactgttccg   | 1860 |
| ggaccatagg  | aagtctgcatt | acaaaaca    | cagttcccat  | ctcattcact  | gagactctgg   | 1920 |
| gctgagatag  | tgaccaagtt  | ttaaacgtca  | tagaagtggg  | agttagccgg  | gcacggcgct   | 1980 |
| catgctctga  | atcctagcac  | tttgggaggg  | tgaggtagggt | ggatcacttg  | aggtcgggag   | 2040 |
| ttcgtgacca  | gctctggc    | catggtgaaa  | ccccgtcttt  | acaaaaata   | caaaactttag  | 2100 |
| cttggcgctg  | ggcggggcac  | ctgtaatccc  | agctactcga  | gaggtctgagg | caggagaact   | 2160 |
| acttgaaacc  | aggaggcgga  | ggcagagggt  | gctgtgagcc  | aacactgcac  | cattgcaact   | 2220 |
| cagcctgagc  | aacaagagca  | agactccatc  | tcaaaaataa  | taataaata   | aataaataag   | 2280 |
| tggggaatga  | tcttgagggc  | tttttttctt  | cttctttttt  | ttttttgaga  | tgaggtctca   | 2340 |
| ctctgtccac  | caggctggag  | ggcagtgcca  | ggatctctgc  | tcactgcggc  | ctccgcttcc   | 2400 |
| caggttttaag | tgattcttat  | gcctcagcct  | cccaagtagc  | tgaggattaca | ggcactccac   | 2460 |
| accagccca   | gtcaattttt  | tgatttttta  | gtagagacca  | cgctggccag  | ctctggtctg   | 2520 |
| aaactccagc  | ctcaaggtga  | tcctcctgcc  | tcggcctccc  | aaagtgtctg  | gattacaagg   | 2580 |
| tgagcctcag  | gtccagcca   | ttcagcatt   | ttctctgaca  | gggtcccta   | ctactctatg   | 2640 |
| gcatgctcct  | acccctggaac | aggagagtag  | atgggtactg  | gcagcctatg  | tcctctctcc   | 2700 |
| gaaatgcctg  | ctctgtatgc  | cagaaaaagag | tcaaaatggt  | tccagacaaa  | agaatccatg   | 2760 |
| gggaggcgag  | agttaatatg  | ttggggaata  | gagagggtct  | agccagactg  | tcaatggatg   | 2820 |
| ctctctgagc  | tgcttctatt  | ctgaatcacc  | ttctttttct  | ttttccagag  | atacaagaca   | 2880 |
| tggtgggact  | ctcagcgacc  | tgggaaagca  | aggtgaggta  | ctaggagact  | agccttctaa   | 2940 |
| aaccttttcc  | tgagatgggt  | catgacacct  | aggtctgttg  | tttgactgaa  | accagtttgc   | 3000 |
| tgggggagac  | atgagataag  | agcacctcct  | agcaaatggt  | gaactaaagg  | ggcctctctg   | 3060 |
| ggctctcccc  | caaagtgaag  | tcattgaagg  | ctctggtcat  | caccatcttc  | aatttccattg  | 3120 |
| tcacggtgag  | tgctgcactt  | accttggaag  | accttggaag  | ccaatatate  | ttccagagaa   | 3180 |
| tggtcctcgt  | gagtaggcac  | tggtgcaggc  | aggtgtccct  | gggtgggggtg | ttagtgtggt   | 3240 |
| agggaggagc  | tatgtgaagg  | tgcttgcacc  | aggttaggta  | ttgaacagat  | atttatgcc    | 3300 |
| ttataaagg   | gagcattaga  | gctttccagc  | agtcacggga  | ggtaggtgaa  | taaccccgag   | 3360 |
| agaagccaca  | ttctcttttc  | ttccccctcc  | ccaacttaga  | gggtggttgg  | ggggctctcc   | 3420 |
| atctctatta  | aagtgtctgg  | ggtagacagc  | tggttggtgg  | ctcgtacccc  | ttaagcctgg   | 3480 |
| ttctccccat  | ctccagcggg  | tgctagctgc  | attgatcgct  | gcctctgtgg  | tggtgtctggc  | 3540 |
| cgagctgtat  | gtcatggtgc  | gggcaatgga  | agggcagctg  | ggagaactct  | aactgtgtgct  | 3600 |
| tcacatcaaa  | gtctagagaa  | gactttgggg  | gcttcaggct  | ccaattggga  | gtcacgcgact  | 3660 |
| cagtcacccc  | atcagacttt  | ttgtattcag  | ctccagttag  | tcagaagacc  | agccccaggcc  | 3720 |
| agctgctggt  | ttctgtggga  | gcctaatct   | tcctgtaatt  | tccaaaggga  | gacttggagg   | 3780 |
| agattgagat  | aacacatctt  | taaaacagaa  | agaactggct  | ttgtctctatc | agtaacctctt  | 3840 |
| cctgaaatctg | gtaccatctc  | gccttctcca  | gttacttcta  | aacactgctg  | ggacttaggggt | 3900 |
| ttttccatca  | ggagcaaatg  | gaatccaggc  | cttcccagaa  | gtagaccata  | gtcctctgaa   | 3960 |
| cttgcacata  | tgtacaaact  | gatcacccag  | tttctccata  | catttttaat  | gcagacactgt  | 4020 |
| aattgagttc  | agaagcctcc  | aagaaaaacg  | aaaggatccc  | ctttctccag  | tttgtgctgg   | 4080 |
| aagagagctc  | gatcagagac  | atcaaaatag  | agaaagactg  | gttgctagag  | gatggtagaa   | 4140 |
| ctggaagcaa  | ggcagctacc  | tttttgcata  | aggaatgggt  | gttagggccc  | ttttccagaa   | 4200 |
| gataagacag  | actcatagag  | attaaatgat  | catctatggtc | ctctctctgt  | taaatggagc   | 4260 |
| caaaagcgcc  | tatgtgtctg  | tgaagtcttg  | taagtgttaa  | ctctctgagaa | cttagattag   | 4320 |
| tggtgtgatg  | atagagctctg | tataacgcat  | tgaaaagggt  | atcaggctta  | gttatttatc   | 4380 |
| caataaatat  | ttttatgtatg | cagggtatct  | ctatttttaac | tcctgtgaca  | acacaaagca   | 4440 |
| tagcgtatttc | tactatctta  | actgttcagg  | gtctgctcct  | ctcgtgtacac | tcctttttgtg  | 4500 |
| tcactgtatg  | tactcctggt  | gtcttttttt  | ttttttccaa  | agcacttttc  | tgttttccata  | 4560 |
| aattatatac  | tcattcactc  | agttggacact | tcctctacaa  | tgtttgccag  | ttctgttttag  | 4620 |
| ttgggagaag  | tgtagcctgt  | gaaaagaaaa  | agtaggtggc  | attttacagt  | gtttccagta   | 4680 |
| acctgag     |             |             |             |             |              | 4687 |

<210> 12828

<211> 1032

<212> DNA

<213> Homo sapiens



## &lt;400&gt; 12828

|             |             |             |            |            |             |      |
|-------------|-------------|-------------|------------|------------|-------------|------|
| agctgacatg  | gtagcgcacg  | cctgtagctc  | cagctactca | ggaggctaag | gtggggaggat | 60   |
| cacttgagcc  | tgaggaggag  | agggtgcagt  | aagctgagta | agccaagatc | atgctattgc  | 120  |
| actctagcct  | ggatgacaga  | gtgagacctt  | gtctcaatga | aaaagcaggg | ggaccctggga | 180  |
| gggggagaacc | aaatgcccta  | tcctccagtt  | ctcagcatat | agaaggagag | tcctctcatct | 240  |
| gtacgcactc  | cctgcctcac  | ttctgccatgc | ttctgttaat | gcactctggg | tccaggggact | 300  |
| gcttggcagg  | agggtgggaag | aacaagaagt  | ttagggccct | cccagtttct | tagggcctgt  | 360  |
| ctggagaggg  | aactagcgtt  | tactgagttt  | ttacgagtgt | ttacacacca | tgtaaagccc  | 420  |
| tttactacata | ttatttctta  | taccccaaac  | agagagcaaa | taagtatccc | catttttttag | 480  |
| tcacatagag  | tttcagagtt  | gccacagtta  | catcgcaaa  | tcaggatttg | aattccagtg  | 540  |
| agaccgcaaa  | caccatggtt  | ttctctccaa  | agcagagcag | ctccagaggt | ggaggtgact  | 600  |
| ggaattgtct  | agattcagtg  | ggaccagag   | ctgggggtgc | tagcagaggc | tcctcatctcc | 660  |
| ccagggtctt  | gtcagtcaga  | gtcctaaacc  | cttcaattaa | ctatccctct | aatccccagct | 720  |
| gaagcctggg  | taatacctcc  | caccaagagg  | tatctgtgtg | gaacctggcc | ctatttaggg  | 780  |
| attaggtgat  | ggagataaat  | ttccatggca  | aacggccctc | gtccccgttc | gtttgcagag  | 840  |
| cacaacaact  | cagattaaag  | tacagagttt  | gggttttatt | tggagattag | ttggtattac  | 900  |
| agggtgatgt  | gataccaaaa  | cccaatgctg  | ctatacctgc | ctccatccca | gatctgtcag  | 960  |
| gttgtctcca  | cagcccccaca | tcagagggca  | tccaatctga | tctttgtgaa | aattaaatca  | 1020 |
| acataagccc  | ca          |             |            |            |             | 1032 |

## &lt;210&gt; 12829

## &lt;211&gt; 21833

## &lt;212&gt; DNA

## &lt;213&gt; Homo sapiens

## &lt;400&gt; 12829

|             |             |             |             |             |             |      |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| tcgacgagcg  | caggatgtga  | gtcacagct   | tgggactgct  | gaggggcagg  | cggtctcagg  | 60   |
| ctagggggcgg | ctcgaggtcc  | gtctggccacc | cagctgagag  | gagaggcgcc  | cccggggagc  | 120  |
| gtgagagcgc  | ggccccgcga  | tgccctcggg  | gaagggatgg  | acggccctgt  | ctggagtaga  | 180  |
| gcgagcccg   | ccgggtctctg | ttctggaaaag | cgccggccgc  | gtaggggaga  | tggagagctc  | 240  |
| cgactctccca | cgaggaggtg  | gcgtgagaac  | cggtgtgggt  | ttctcggtag  | tgagggagtg  | 300  |
| ttccgggtcag | agaagagccc  | acaccggcca  | catttcccag  | gaactttttg  | gactctgtta  | 360  |
| acctttacac  | ctaggggtttc | tgctagatcc  | gccactctag  | ccctcagctt  | tcctcccgc   | 420  |
| gtctcctcgt  | tctgacggat  | ttctgggtcc  | ttcttctctt  | tagacccctc  | gacttttccac | 480  |
| ctccgcggct  | gtttgcccct  | tgtttgtgctt | gggttcccat  | tagcttctgt  | gcgtgagcca  | 540  |
| cggatccgcc  | cttagccccc  | ggcatcccca  | aatatccaca  | cacaagtgc   | ggaaggaaga  | 600  |
| gcactctggc  | tatcagtgga  | aactctcatc  | tcactggaat  | tactttcttg  | ggcgtcaact  | 660  |
| gccacagaat  | tctctggaacc | cattgggtctg | ggcggaatgt  | gattgacgtg  | ctccaggggc  | 720  |
| tcaaagcaat  | tgctttgtag  | gaaaggaaga  | gattagctct  | ggatcccgccg | acctctcttg  | 780  |
| gcaggcccat  | ccctttgagct | ccctttgcatt | ggcagaacat  | gtatgtgtgc  | tttctctgat  | 840  |
| ctcggggaaaa | ctaggactag  | acacaaaaa   | cacaggggaac | ttgtctatac  | ctgttagaga  | 900  |
| ggtgagttta  | ttccttttag  | gtgggcggga  | aaagggaagg  | tgatctcata  | ccatctctagt | 960  |
| gtttctttagt | catttggcaac | ctcctgggtga | gggctcacct  | cccataccca  | acctcgtggg  | 1020 |
| caaatgaag   | agtctccag   | acaagccgcc  | aaagggaattc | actgctctac  | acagcaccca  | 1080 |
| cgctggctgtg | ccactctctt  | ggacattctt  | cccagggaatc | taacctaaatc | tttccaggga  | 1140 |
| caattttcagt | ctaacaactc  | gacgtatgtt  | aaatacttaa  | aatgtgcatg  | gcattgtgtct | 1200 |
| gagcaccatt  | aggggaaacac | agcggttaaac | ttgggaaacc  | agtgccctgc  | ttctgggttg  | 1260 |
| cacttacaag  | gcattgagcaa | ctgtaaaactc | ctgcattgtga | tgagcattcg  | gtgaaatcat  | 1320 |
| tccaattttt  | ttctgtcttc  | attattacca  | atgtgggtcca | ggctggccatc | attcttctctt | 1380 |
| gcctagacta  | ctgcttctctc | tggtctctcc  | acttctctctc | ttgcaacctt  | acaattctatt | 1440 |
| ctctacccag  | cagcaagtta  | tcttttcaaa  | atacactaca  | agcaagtccag | atcatatcac  | 1500 |
| tcctcctgctt | gcaacctctc  | aattgattca  | tatactatat  | agcaatttagt | atgaaatcca  | 1560 |
| ccctttgttat | catctaaagc  | ctgccttccc  | tgacttgaca  | tcaaaaccaac | ttccccctac  | 1620 |
| ttgtctgtca  | ccagccattta | tgaccgtatt  | ttctgacctc  | aaactttgtt  | taatttttgtc | 1680 |
| attgttgaga  | tgagattttcc | ctatgtcacc  | caggctgact  | ttccccaggct | caagcagta   | 1740 |
| tccacatcta  | gctctccag   | cagctgggac  | cacaggcatg  | agccacattta | ctctggctaat | 1800 |
| ttttttttat  | tttgtgaaac  | aaactctcac  | tatgttgcgc  | agacttgctt  | tgaactcctg  | 1860 |
| gggtcgaagc  | atccaccac   | ttcggcctcc  | taaaagtcta  | ggattacagg  | gttgagccac  | 1920 |
| cacacccgcc  | ccctaaaact  | tgtttctaac  | agggaactttg | cacttactct  | tcctatctgtc | 1980 |
| tacaatgtctc | tcttcaaac   | tcagctgaaa  | tgctcaccatc | ccaaagatgc  | ttttctctgtc | 2040 |

|            |             |             |            |             |            |      |
|------------|-------------|-------------|------------|-------------|------------|------|
| cctttgtctc | aattagtgtc  | tctcccta    | cactctcata | tcactgtttt  | attactctta | 2100 |
| ttgcatttat | caggtttctg  | aattatctgc  | ttatttattt | aagtccttgt  | tgctagtctg | 2160 |
| ttttcctcca | ctagaatgta  | agctccatgt  | ggacatgact | ttctatatgt  | gttctctctt | 2220 |
| gagatcccaa | tgctgtggac  | gtaggggtac  | aataaatgct | agctttctct  | ctttttaaaa | 2280 |
| attcctgtta | tgatgctctt  | ttgaactgtt  | tgaaggcaaa | gacaatattt  | tttctatgct | 2340 |
| cctcatctgt | taacatagt   | ggcactcagt  | agtttaattg | ctgaatgagt  | taaatgagct | 2400 |
| agttacatat | aaatgccaa   | agatggggct  | ttgtctatgt | gccaaaggct  | gtcttgactc | 2460 |
| ctgggtctca | gagatctctc  | cacctcgccc  | tactgagtac | ccaggagtag  | agccagggtg | 2520 |
| cagcacacat | ctacactcat  | gttttttaga  | tttatccctc | gatcttttct  | agtcctttct | 2580 |
| tctcccatct | ttattgggag  | ggaaaggagg  | agtagggctg | ggctccctct  | caggaaaaag | 2640 |
| aaagggaaac | agccatccta  | tagctgttct  | tcctgaaaaa | atgggtgcaa  | tttcaggaa  | 2700 |
| ttggggaca  | gctgggtgca  | agaaagggga  | aggtcaggaa | gccccaggcc  | aagccagggt | 2760 |
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| acacaggccc  | aggcccaacc  | ccagccagcc  | aacgcagcca | gcaccaaccc  | cccgcctcca  | 180  |
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| ggatgatctc  | cttgtggggc  |
| ataggacttc  | tactgtacc   |
| tcttgcatt   | gcagtaagag  |
| gcagtaagag  | tggtgtctctg |
| tagcagtagg  | tcagtgtgtt  |
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| ggatgatctc  | cttgtggggc  |
| tactgtacc   | tcttgcatt   |
| gcagtaagag  | tggtgtctctg |
| tagcagtagg  | tcagtgtgtt  |
| aggagtccca  | ggatctctat  |
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| ggcagctacgt | gtctgggtct  |
| acgtctctcca | ttgaccaaga  |
| ggggagctca  | ct          |
|             | 60          |
|             | 120         |
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| atactgattc  | ccccagcttc  | accttggaa   | tacccttaga | tttactttga  | agaattaaaa  | 10380 |
| tatagataga  | taattatcct  | gattaaacac  | atlaacactt | gaagtgtggt  | agatgtgtgt  | 10440 |
| cttaactctt  | acatctcccc  | ttagtgtcca  | ttccagaaga | gctttgtcac  | tgtgccagcc  | 10500 |
| aatcctgata  | aggaatttta  | tcacttcaat  | tcacggccag | ctctcgggcat | atgagaaagt  | 10560 |
| aggaaggat   | tccaccatag  | cctcacaccc  | ccaaaacaca | caaacacaca  | ctaggatgtc  | 10620 |
| cctcactgt   | agagatgatg  | ttctgtggga  | gctcacagta | tcagagacca  | gggaaggacc  | 10680 |
| aacgggtgtg  | ggcgttcgga  | agaaaagaaa  | gacgtatgac | tccttgaaatt | tacatagggg  | 10740 |
| gaaaggagat  | tgcttactgg  | aagtccaggt  | gattgggtgt | aggggaaaag  | ctgtgtgtgg  | 10800 |

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| agaactctgg  | ttagggggag  | gggaagagac  | agagaagtag  | cgactgaact  | gtcccttaaa  | 10980 |
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| gagggaiaac  | gggacggcgg  | cagtggtctaa | cgccctgtaat | cctaactact  | aaggaggctg  | 11340 |
| ataaggtgtg  | agcactctag  | ctcaggagtt  | cgaggctagc  | ctagccaaca  | tggggaaacc  | 11400 |
| ccgtctctac  | taaaaaatac  | aaaattagcc  | ggcggtggtg  | gtggcgccct  | gtaatccagg  | 11460 |
| ctactcaggga | ggctgaggca  | ggagaatcac  | tfgaactcag  | gaggcggagg  | tgcagtgtag  | 11520 |
| ccgagatcgc  | accattgcac  | tcacgcctgg  | acgataagag  | cgaaactccg  | tcttaaaaaa  | 11580 |
| aaaaaaaaaa  | aaaaaaaaaga | tagaaaggaa  | aacggaaaac  | ggctgccttt  | aatctcactc  | 11640 |
| cttacagcca  | gagatgggaa  | ctttgacttc  | ccacctgggg  | gagcacgaga  | gtgctcgtaa  | 11700 |
| aactgatccc  | aaggcccaaa  | aagagaaagg  | acaggaaaaa  | ataagcaggt  | ggagttttac  | 11760 |
| ggagtacga   | caaggtcttt  | cagctgatga  | cccaggtccc  | acaaagataa  | agactcctaag | 11820 |
| ggggcggtgt  | cccttaaggga | cgcaacttc   | agacttctgg  | cgggggaggc  | ttctctggaca | 11880 |
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| tctgtatagg  | gcttggaaag  | tgtcgggggg  | tggggacttc  | gcagaaaaac  | ggggcagcag  | 12120 |
| gtggggctgg  | agacaaaaaa  | taaaaatcaa  | gtcggggttc  | ggggggagccc | cctgaagtgt  | 12180 |
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| atcacgcca   | tgccagctta  | ggttacgcct  | ccaactttct  | ccccggggcc  | tgctctccctg | 12420 |
| gagaaacttt  | attacactca  | cttcgggcct  | cactaacccc  | tgacctcta   | cctcagggtc  | 12480 |
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| tccagcaaaa  | acactcccc   | agggggccatt | ttacaaaatg  | cgagcagagg | gaagacacaa  | 180  |
| caaaaacagc  | aacagataaa  | tggggcnaaa  | agaacacaaa  | acacaagagt | tgagcagcgg  | 240  |
| gggtgggggtg | ggggggttgc  | atctacgcgc  | ttttagtgtg  | agggacactg | gaagcagatgc | 300  |
| ccagaggtctg | ctctctctcc  | agcctcaaa   | gttgctcagc  | ccaccagagc | aggggtctctc | 360  |
| ctctctcctc  | caggaaactga | gagaaagtgg  | ggtaggggac  | cactaggtct | tgtccactgt  | 420  |
| atcttgagct  | gggggactcc  | taactctctc  | gaggggccaca | ccccatgcct | gccttccccca | 480  |
| ccccatggag  | gaatgtgtgc  | atgaacagaa  | aaggagaaag  | agcagcgcta | aggtctctcat | 540  |
| caggccccag  | gcccatctct  | ggcaggcagt  | gcttaaaaaa  | taaaaaaaga | caataaaagc  | 600  |
| ccagctcagg  | cctttggctg  | agaggaatga  | gaattgctaa  | ttaatcacca | ggcccaagag  | 660  |
| gatataaag   | aatagcnaag  | agaagcaaca  | aactccaggc  | tcttctacct | tttgagtacca | 720  |
| tggcaatgag  | gatccgcgcg  | catccccctac | ccacaggctg  | tgacagggcc | tcacttggat  | 780  |
| ccttttatca  | tggaggaaat  | gaggtatagg  | gctctgcgc   | ttttcaagct | ttccttcaat  | 840  |
| caagccaggga | agggcagggga | ataagggcgc  | cgaaagtgtg  | agaacacagc | gagataaatg  | 900  |
| tgcacacagt  | gggctggggg  | agggagggtac | ccacaaagtc  | cagactttca | ggagaccacca | 960  |
| taacttcaat  | attctggtct  | gtcagataac  | atatcccaat  | ttttggcaaa | aatatggtca  | 1020 |
| ttaggagaana | agcagcagag  | aggtcgagaa  | agggaccagt  | actttggtat | gaagaagata  | 1080 |
| cgctcctgga  | gcactctctca | cctactgtct  | tgaagcccaca | aatacccaag | aaactgccat  | 1140 |
| aaccagtgac  | tctcctgctt  | cctcaggcta  | tttggttctc  | tgggggggaa | ggagttgggt  | 1200 |
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| cacaaaatgg  | ctctgctcag  | cagggtcttg  | gtttctctgga | tctctgtaga  | tctcaacatg  | 1560 |
| taagtttccc  | aaaacagtgta | gcaatccagg  | ctctctctgcc | tgccccacctc | aattctcttt  | 1620 |
| ctgctcccgag | gagccactgt  | ttctgccccca | tggggatgga  | aagccagtggt | aaacaaggac  | 1680 |
| caagagccaa  | acatcaaaaaa | aatcacccctg | gaagagcagg  | gagagacatg  | tgcacttccc  | 1740 |
| tggggcaactt | caccagcgctc | accctactgt  | agcagccacc  | agctgcceca  | tgccctcacg  | 1800 |
| gatgtagaca  | gactggatct  | ccttggtctt  | gaggcagaga  | ctgcaggccc  | agacggcaga  | 1860 |
| agcttcagtg  | gtcagcagcc  | ctacggcgct  | ctcagtcag   | ctctgcaact  | caggtgtgaa  | 1920 |
| ccatttctgc  | caggaggcct  | cacacagaat  | ggcactcttg  | tcatcgctta  | ctcactccg   | 1980 |
| acaggccacca | catgggtaca  | ccaagcctgg  | gggaggctgg  | gcccgagacc  | cccactctgc  | 2040 |
| ttgccagggg  | gtgccaaagt  | gttggcatct  | ggagtgcce   | caccccgccc  | actgctgttc  | 2100 |
| ggggggaaac  | tgggctgtgt  | cccatlaaca  | gcagcagccg  | gggagcctga  | gtggggctcc  | 2160 |
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| ccaggaaaagc | cagggtccgg  | accaggaaaag | ggactttgt   | tagcgccgag  | gctgggggagc | 2280 |
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| tgggacagag  | aaggtgggccc | cagctctgct  | ctggggagct  | gtcccatggt  | gggtgagatc  | 2400 |
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| ggagggggct  | caacccccac  | tttgggggt   | ccgaagtcac  | cttcaaaaag  | gttggatgca  | 2760 |
| accaggtgat  | ccaccatggg  | agttgggggt  | gggtcaaaat  | cgtgcagatg  | tgagtatgca  | 2820 |
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| ctaaaatcaa  | tatggaccac  | agggcaggtg  | cgggtggctca | cctctgtaat  | cccagcaact  | 3000 |
| tgggaagcaca | agggcgggcag | atcacgaggt  | caggagatcg  | agatcatcct  | ggctaacacg  | 3060 |
| gtgaaccccc  | gtctctacta  | aaaatacaaa  | aaaattagcc  | ggcggtggtg  | gtggcgccct  | 3120 |
| gtagtccag   | ctactcggga  | ggctgaagca  | ggagaatggc  | gtgaacccag  | gaggcgggagc | 3180 |
| ttgcagtgag  | ccaagaccat  | accactgcac  | tccagctcgg  | gcacagagac  | gaagactccg  | 3240 |
| ctcaaaaaaa  | aaaaaaaaaa  | aattggaccac | aggccaggca  | cagtggtgca  | cactctgtaat | 3300 |
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| cacagcaagt  | ctctgttact  | acaaaaaaaa  | aaaaagaaaa  | gaaaaagaaa  | gaaaaagaaa  | 3420 |
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| atcagtaaat  | ggtaggtgtt  | acgttatcat  | caggaggaaa  | ccaggacagg  | aaacatggag  | 3720 |
| gagactgag   | ccctgcgttg  | taagaacttt  | ggtcgaatca  | ctcttagga   | gaggactactt | 3780 |
| tcccctaaac  | ttgttataag  | gttcagcgaa  | agaacaagaa  | gcaaaagcaag | aaagacagatt | 3840 |
| ttctctctcc  | tcacctgcag  | tgtatcaaga  | tacaacaga   | tactggaatg  | gcagagtaga  | 3900 |
| cagtgctgcg  | ccaaggggct  | gtggggaacc  | aaaccaccca  | ccaaccacca  | tctcaactgag | 3960 |
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 <213> Homo sapiens

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| cggaacaaat  | cgacgacgag  | gagtttgagt  | atcggttagt | gctggcgcg   | gacaatagcg  | 180 |
| agggtctgtga | gctttggccg  | ctgaggggac  | aaggaaatag | tacacgaagac | tgaggcgata  | 240 |
| gaattggcgcc | atcgtagcag  | gtgcgaacgg  | gcaatggtgt | gatattgtgt  | aaggcgttaag | 300 |
| ggcagtcgccc | ggaggtggga  | ggcgctcgta  | aaacaaagt  | tttgcgaatt  | ttgagtcgcc  | 360 |
| tctcatagaga | gaggagagag  | gggtggcggt  | ggttagggta | ctgaccaccc  | ctacacatga  | 420 |
| ggctttctgtg | atcatctctc  | gaactttatc  | gggcaaacct | aacttgcctt  | tgaggactgt  | 480 |
| tttccacagta | atcttgtcga  | atccagtggt  | agaacgtagc | aaaagcggtg  | ctggaagttt  | 540 |
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| atggaataaa  | actggctagg  | agcattgaga  | aaataactta  | tatgggtcta  | atagatgccc  | 720  |
| tttaataat   | aaagggaaca  | gttacggaat  | acttaacagg  | tttcaggtgt  | tctgtctaaag | 780  |
| tgcaaggata  | acacatgttc  | tctgtgttc   | acaaatttaa  | aaatctgtgg  | gtgtaccga   | 840  |
| cagacaccag  | aaaggttgaca | cacgctatgc  | aaggagccat  | tacaggggtg  | gatggggaga  | 900  |
| cagacagact  | gctaaggaga  | gggaactggc  | gacccgaaag  | tctggcgctc  | ctagctgtga  | 960  |
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| cccactccca  | cgcttcgaga  | agcccccgcg  | cccccaccac  | gccttggagg  | ctggactctt  | 1080 |
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| caccagcgtc  | agtttgcagg  | tttgggtctt  | ccagagaact  | cgatgtgcct  | tgacaaatac  | 1860 |
| ataatcatct  | ttatgcgaag  | acgggtccag  | accctctctt  | aattaaactt  | cttttctctca | 1920 |
| gctgttttcc  | tctacatctg  | aactaaacta  | acttaaaact  | gtatgtgctt  | ataagagatt  | 1980 |
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| ggaattatgt  | actaaattgt  | atttttaata  | tactctcgga  | atttatataa  | atagcctgtg  | 3180 |
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 <212> DNA  
 <213> Homo sapiens

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| aattatttat  | atttattctaa | attcatgatg  | taaggaggtt  | agtgagacctg | gattttctgt  | 180  |
| cttaagtaag  | ttctttctact | tacaaatcat  | gaaaacctca  | gtctctctcat | tgtgaaaatg  | 240  |
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| acaagcatac  | gcaccacacc | ttggtgaaca  | tcagatatgt  | taaggtgtag  | cccagagtct | 180 |
| agttgtgtaa  | tgttacttat | attgggagcta | gtattttcta  | atgtttctgtg | gatagctccc | 240 |
| ctataaaagt  | aaatgttttc | ctggaacaat  | gctaattagg  | atttgacttc  | tgcccaagaa | 300 |
| catgacatca  | aataagtaat | agacatcacc  | agcaatgaat  | ttgaaaaagg  | aaaaaatatc | 360 |
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&lt;400&gt; 12857

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| agcgcgagat  | agatgagatt  | gagtagaaga  | agtgggcgga  | tgatgaagaa  | ggtaaggagc  | 180  |
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| gtttttctcc  | tgatctctgc   | ttttcattag  | taatgaattt  | ccactctctt  | ttccctttca  | 18840 |
| tgacaaatca  | gtacagtgaa   | tgtaattgccc | acatccagcg  | atgcatactc  | ttccaccatt  | 18900 |
| cttaggctgc  | agagaaaggaa  | gcagcccttg  | tgacgaaga   | agaaagaaag  | gctgaaccaac | 18960 |
| ggaaaagagc  | tcgggcttag   | aagaaagcgt  | taaaaaagaa  | agaaaagatc  | agagggccag  | 19020 |
| agaaagcggg  | agcagatgag   | gatgatgaga  | aagagttggg  | cgatgatgaa  | gaaggttaagg | 19080 |
| agctcttgag  | aaatttgtgtt  | ttgaaacgtc  | ttaaagttag  | agaagttgcg  | aatcacagat  | 19140 |
| gaagaacttt  | cttccctgaa   | ccgttaaccg  | cttgataccc  | attacccttt  | gatcaactgt  | 19200 |
| aggggtgtat  | tcttgcaaac   | aaagggccct  | cttctacatg  | actagaatgc  | agccactcaga | 19260 |
| gccggggtta  | gcaatgagct   | attgggttccc | atttatcctg  | ataatgtccc  | ttgtagttaa  | 19320 |
| aggatccggt  | tcaggatgca   | ctatttgtgt  | tagttgtctc  | gtctcctgga  | tctccttgag  | 19380 |
| ctctggagac  | ttctcagctt   | ttttttttta  | ctctgatgac  | ctcgactctt  | gtaagggggc  | 19440 |
| agggccaggt  | ctgtgttgtg   | ccccctcagc  | tggtgtgtgc  | tgatgtctcc  | taagcatbtg  | 19500 |
| attccactca  | tgcatctcgg   | gcaggaatag  | tgcaacaagt  | ctcctgtggc  | ctgcccattg  | 19560 |
| agtccecatca | ggttgagctg   | gattcgcttt  | gttccatcac  | tggtgatgac  | cttttttga   | 19620 |
| attatttatg  | ctgattctct   | acttatccca  | ggtttggcta  | ccaagagttc  | cttcacacag  | 19680 |
| gcttctatgt  | ccctttgacc   | tgtccccctg  | ttctttgatc  | atttctctac  | ctcttagcac  | 19740 |
| acaataccca  | agggtcatct   | tatactttcc  | ataactcagc  | cctggaatcc  | atcattttctc | 19800 |